

NASA Contractor Report 189656, Volume 8

FINAL TECHNICAL REPORT

For

**Support Activities to Maintain SUMS
Flight Readiness**

Contract No. NAS1-17399

**Volume 8 of 9
Attachment B: Flight STS-35 Report
(Section F)**

submitted to

**National Aeronautics and Space Administration
Langley Research Center
Hampton, Virginia 23665-5225**

by

**The University of Texas at Dallas
P.O. Box 830688
Richardson, Texas 75083-0688**

(NASA-CR-189656-Vol-8) SUPPORT ACTIVITIES
TO MAINTAIN SUMS FLIGHT READINESS, VOLUME 8.
ATTACHMENT B: FLIGHT STS-35 REPORT, SECTION
F Final Technical Report (Texas Univ. at
Dallas) 2070 2081 [REDACTED]

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**SUMS FINAL REPORT
CONTRACT NAS1-17399**

**ATTACHMENT B-PART II
REPORT FLIGHT STS 35 BET**

The attached data was obtained from NASA Contractor Report 189569. This report, entitled "Final STS-35 Columbia Descent BET Products and Results for OEX Investigations" was authored by K. F. Oakes, J. T. Findlay, R. A. Jasimski, and J. S. Wood of Flight Mechanics & Control Inc. and dated November, 1991.

Only selected values from the report have been listed and altitude and velocity units have been converted to metric units.

| DAY | TIME(SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 20601 | 44938 | 2464.71 | 34.887 | 34.5261 | 236.947 |
| 5 | 20602 | 44882 | 2456.75 | 34.926 | 34.5213 | 236.974 |
| 5 | 20603 | 44827 | 2448.75 | 34.889 | 34.5165 | 237.000 |
| 5 | 20604 | 44774 | 2440.71 | 34.859 | 34.5117 | 237.026 |
| 5 | 20605 | 44722 | 2432.65 | 34.827 | 34.5068 | 237.053 |
| 5 | 20606 | 44673 | 2424.56 | 34.730 | 34.5019 | 237.079 |
| 5 | 20607 | 44627 | 2416.49 | 34.599 | 34.4970 | 237.105 |
| 5 | 20608 | 44583 | 2408.45 | 34.484 | 34.4921 | 237.131 |
| 5 | 20609 | 44541 | 2400.44 | 34.387 | 34.4872 | 237.156 |
| 5 | 20610 | 44503 | 2392.46 | 34.310 | 34.4823 | 237.182 |
| 5 | 20611 | 44466 | 2384.49 | 34.247 | 34.4775 | 237.208 |
| 5 | 20612 | 44432 | 2376.54 | 34.182 | 34.4726 | 237.233 |
| 5 | 20613 | 44401 | 2368.63 | 34.114 | 34.4678 | 237.259 |
| 5 | 20614 | 44370 | 2360.76 | 34.045 | 34.4631 | 237.284 |
| 5 | 20615 | 44342 | 2352.95 | 33.981 | 34.4583 | 237.310 |
| 5 | 20616 | 44313 | 2345.19 | 33.957 | 34.4537 | 237.335 |
| 5 | 20617 | 44285 | 2337.47 | 33.960 | 34.4491 | 237.360 |
| 5 | 20618 | 44257 | 2329.79 | 33.953 | 34.4445 | 237.385 |
| 5 | 20619 | 44227 | 2322.19 | 33.904 | 34.4401 | 237.410 |
| 5 | 20620 | 44196 | 2314.67 | 33.809 | 34.4357 | 237.435 |
| 5 | 20621 | 44163 | 2307.24 | 33.748 | 34.4314 | 237.460 |
| 5 | 20622 | 44127 | 2299.87 | 33.747 | 34.4272 | 237.485 |
| 5 | 20623 | 44089 | 2292.52 | 33.819 | 34.4230 | 237.509 |
| 5 | 20624 | 44048 | 2285.18 | 33.888 | 34.4190 | 237.534 |
| 5 | 20625 | 44005 | 2277.85 | 33.952 | 34.4150 | 237.559 |
| 5 | 20626 | 43958 | 2270.54 | 33.980 | 34.4111 | 237.583 |
| 5 | 20627 | 43909 | 2263.27 | 33.998 | 34.4073 | 237.608 |
| 5 | 20628 | 43857 | 2256.06 | 34.022 | 34.4036 | 237.632 |
| 5 | 20629 | 43802 | 2248.86 | 34.033 | 34.3999 | 237.657 |
| 5 | 20630 | 43744 | 2241.70 | 34.037 | 34.3964 | 237.681 |
| 5 | 20631 | 43683 | 2234.54 | 34.030 | 34.3929 | 237.705 |
| 5 | 20632 | 43620 | 2227.39 | 34.123 | 34.3895 | 237.729 |
| 5 | 20633 | 43555 | 2220.17 | 34.206 | 34.3862 | 237.753 |
| 5 | 20634 | 43487 | 2212.92 | 34.182 | 34.3830 | 237.777 |
| 5 | 20635 | 43417 | 2205.67 | 34.086 | 34.3798 | 237.801 |
| 5 | 20636 | 43345 | 2198.47 | 33.978 | 34.3767 | 237.825 |
| 5 | 20637 | 43272 | 2191.30 | 33.877 | 34.3737 | 237.849 |
| 5 | 20638 | 43198 | 2184.16 | 33.760 | 34.3708 | 237.873 |
| 5 | 20639 | 43124 | 2177.05 | 33.598 | 34.3679 | 237.896 |
| 5 | 20640 | 43049 | 2170.00 | 33.425 | 34.3651 | 237.920 |
| 5 | 20641 | 42974 | 2163.03 | 33.268 | 34.3624 | 237.943 |
| 5 | 20642 | 42899 | 2156.12 | 33.137 | 34.3598 | 237.967 |
| 5 | 20643 | 42823 | 2149.23 | 33.012 | 34.3571 | 237.990 |
| 5 | 20644 | 42748 | 2142.38 | 32.911 | 34.3546 | 238.013 |
| 5 | 20645 | 42673 | 2135.57 | 32.819 | 34.3521 | 238.037 |
| 5 | 20646 | 42597 | 2128.80 | 32.729 | 34.3497 | 238.060 |
| 5 | 20647 | 42522 | 2122.05 | 32.639 | 34.3473 | 238.083 |
| 5 | 20648 | 42446 | 2115.33 | 32.562 | 34.3450 | 238.106 |
| 5 | 20649 | 42370 | 2108.60 | 32.496 | 34.3428 | 238.129 |
| 5 | 20650 | 42293 | 2101.85 | 32.452 | 34.3406 | 238.152 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 20551 | 47469 | 2899.33 | 37.249 | 34.6810 | 235.482 |
| 5 | 20552 | 47423 | 2889.91 | 37.196 | 34.6797 | 235.514 |
| 5 | 20553 | 47377 | 2880.47 | 37.168 | 34.6783 | 235.546 |
| 5 | 20554 | 47332 | 2871.06 | 37.144 | 34.6769 | 235.577 |
| 5 | 20555 | 47287 | 2861.64 | 37.472 | 34.6754 | 235.609 |
| 5 | 20556 | 47243 | 2851.75 | 38.062 | 34.6737 | 235.640 |
| 5 | 20557 | 47198 | 2841.84 | 37.282 | 34.6721 | 235.672 |
| 5 | 20558 | 47155 | 2832.60 | 36.540 | 34.6703 | 235.703 |
| 5 | 20559 | 47111 | 2823.60 | 36.405 | 34.6684 | 235.734 |
| 5 | 20560 | 47067 | 2814.58 | 36.611 | 34.6665 | 235.766 |
| 5 | 20561 | 47024 | 2805.44 | 36.807 | 34.6645 | 235.797 |
| 5 | 20562 | 46980 | 2796.26 | 36.833 | 34.6625 | 235.827 |
| 5 | 20563 | 46936 | 2787.12 | 36.756 | 34.6603 | 235.858 |
| 5 | 20564 | 46892 | 2778.15 | 36.702 | 34.6581 | 235.889 |
| 5 | 20565 | 46848 | 2769.24 | 36.685 | 34.6558 | 235.920 |
| 5 | 20566 | 46803 | 2760.35 | 36.651 | 34.6534 | 235.950 |
| 5 | 20567 | 46758 | 2751.49 | 36.635 | 34.6510 | 235.980 |
| 5 | 20568 | 46713 | 2742.65 | 36.633 | 34.6485 | 236.011 |
| 5 | 20569 | 46667 | 2733.83 | 36.627 | 34.6459 | 236.041 |
| 5 | 20570 | 46621 | 2725.02 | 36.610 | 34.6432 | 236.071 |
| 5 | 20571 | 46573 | 2716.24 | 36.589 | 34.6405 | 236.101 |
| 5 | 20572 | 46526 | 2707.48 | 36.588 | 34.6376 | 236.130 |
| 5 | 20573 | 46477 | 2698.73 | 36.576 | 34.6348 | 236.160 |
| 5 | 20574 | 46428 | 2690.01 | 36.541 | 34.6318 | 236.190 |
| 5 | 20575 | 46378 | 2681.31 | 36.505 | 34.6288 | 236.219 |
| 5 | 20576 | 46327 | 2672.63 | 36.474 | 34.6256 | 236.249 |
| 5 | 20577 | 46276 | 2663.95 | 36.414 | 34.6225 | 236.278 |
| 5 | 20578 | 46223 | 2655.29 | 36.241 | 34.6192 | 236.307 |
| 5 | 20579 | 46170 | 2646.70 | 36.079 | 34.6159 | 236.336 |
| 5 | 20580 | 46117 | 2638.14 | 36.060 | 34.6125 | 236.365 |
| 5 | 20581 | 46062 | 2629.53 | 36.096 | 34.6090 | 236.394 |
| 5 | 20582 | 46007 | 2620.86 | 36.098 | 34.6055 | 236.423 |
| 5 | 20583 | 45952 | 2612.19 | 36.045 | 34.6018 | 236.451 |
| 5 | 20584 | 45896 | 2603.58 | 35.936 | 34.5982 | 236.480 |
| 5 | 20585 | 45839 | 2595.06 | 35.799 | 34.5944 | 236.508 |
| 5 | 20586 | 45783 | 2586.58 | 35.691 | 34.5906 | 236.536 |
| 5 | 20587 | 45726 | 2578.15 | 35.564 | 34.5867 | 236.564 |
| 5 | 20588 | 45669 | 2569.77 | 35.462 | 34.5828 | 236.592 |
| 5 | 20589 | 45612 | 2561.43 | 35.368 | 34.5788 | 236.620 |
| 5 | 20590 | 45556 | 2553.14 | 35.285 | 34.5747 | 236.648 |
| 5 | 20591 | 45499 | 2544.91 | 35.215 | 34.5706 | 236.676 |
| 5 | 20592 | 45443 | 2536.73 | 35.143 | 34.5664 | 236.704 |
| 5 | 20593 | 45387 | 2528.60 | 35.071 | 34.5621 | 236.731 |
| 5 | 20594 | 45331 | 2520.51 | 35.020 | 34.5578 | 236.758 |
| 5 | 20595 | 45275 | 2512.45 | 34.963 | 34.5534 | 236.786 |
| 5 | 20596 | 45219 | 2504.44 | 34.917 | 34.5490 | 236.813 |
| 5 | 20597 | 45163 | 2496.46 | 34.890 | 34.5445 | 236.840 |
| 5 | 20598 | 45107 | 2488.50 | 34.868 | 34.5400 | 236.867 |
| 5 | 20599 | 45050 | 2480.57 | 34.820 | 34.5354 | 236.894 |
| 5 | 20600 | 44994 | 2472.66 | 34.828 | 34.5308 | 236.920 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 20501 | 50283 | 3393.10 | 39.622 | 34.6383 | 233.747 |
| 5 | 20502 | 50235 | 3383.79 | 39.633 | 34.6415 | 233.784 |
| 5 | 20503 | 50187 | 3374.46 | 39.635 | 34.6446 | 233.822 |
| 5 | 20504 | 50137 | 3365.11 | 39.643 | 34.6476 | 233.859 |
| 5 | 20505 | 50086 | 3355.77 | 39.651 | 34.6504 | 233.895 |
| 5 | 20506 | 50034 | 3346.39 | 39.640 | 34.6532 | 233.932 |
| 5 | 20507 | 49982 | 3336.97 | 39.609 | 34.6559 | 233.969 |
| 5 | 20508 | 49928 | 3327.51 | 39.585 | 34.6585 | 234.005 |
| 5 | 20509 | 49874 | 3305.02 | 39.580 | 34.6610 | 234.042 |
| 5 | 20510 | 49819 | 3295.39 | 39.556 | 34.6634 | 234.078 |
| 5 | 20511 | 49764 | 3285.76 | 39.515 | 34.6656 | 234.115 |
| 5 | 20512 | 49708 | 3276.16 | 39.467 | 34.6678 | 234.151 |
| 5 | 20513 | 49651 | 3266.58 | 39.417 | 34.6699 | 234.187 |
| 5 | 20514 | 49594 | 3257.01 | 39.377 | 34.6719 | 234.223 |
| 5 | 20515 | 49537 | 3247.46 | 39.351 | 34.6737 | 234.259 |
| 5 | 20516 | 49479 | 3237.91 | 39.324 | 34.6755 | 234.295 |
| 5 | 20517 | 49422 | 3228.35 | 39.295 | 34.6772 | 234.330 |
| 5 | 20518 | 49364 | 3218.77 | 39.268 | 34.6788 | 234.366 |
| 5 | 20519 | 49305 | 3209.18 | 39.246 | 34.6803 | 234.401 |
| 5 | 20520 | 49247 | 3199.61 | 39.209 | 34.6817 | 234.437 |
| 5 | 20521 | 49189 | 3190.06 | 39.159 | 34.6830 | 234.472 |
| 5 | 20522 | 49130 | 3180.53 | 39.105 | 34.6842 | 234.507 |
| 5 | 20523 | 49071 | 3171.03 | 39.059 | 34.6853 | 234.542 |
| 5 | 20524 | 49012 | 3161.55 | 39.062 | 34.6864 | 234.577 |
| 5 | 20525 | 48952 | 3152.06 | 39.058 | 34.6873 | 234.612 |
| 5 | 20526 | 48893 | 3142.51 | 39.033 | 34.6881 | 234.647 |
| 5 | 20527 | 48833 | 3132.89 | 39.025 | 34.6889 | 234.682 |
| 5 | 20528 | 48773 | 3123.25 | 39.009 | 34.6895 | 234.716 |
| 5 | 20529 | 48712 | 3113.58 | 38.988 | 34.6901 | 234.751 |
| 5 | 20530 | 48651 | 3103.89 | 38.961 | 34.6906 | 234.785 |
| 5 | 20531 | 48589 | 3094.15 | 38.932 | 34.6910 | 234.819 |
| 5 | 20532 | 48527 | 3084.41 | 38.918 | 34.6912 | 234.853 |
| 5 | 20533 | 48465 | 3074.64 | 38.902 | 34.6914 | 234.887 |
| 5 | 20534 | 48402 | 3064.86 | 38.910 | 34.6915 | 234.921 |
| 5 | 20535 | 48340 | 3055.05 | 38.891 | 34.6915 | 234.955 |
| 5 | 20536 | 48277 | 3045.24 | 38.807 | 34.6915 | 234.989 |
| 5 | 20537 | 48215 | 3035.46 | 38.693 | 34.6913 | 235.022 |
| 5 | 20538 | 48154 | 3025.68 | 38.607 | 34.6911 | 235.056 |
| 5 | 20539 | 48094 | 3015.90 | 38.555 | 34.6908 | 235.089 |
| 5 | 20540 | 48035 | 3006.11 | 38.481 | 34.6904 | 235.123 |
| 5 | 20541 | 47978 | 2996.31 | 38.369 | 34.6899 | 235.156 |
| 5 | 20542 | 47921 | 2986.52 | 38.242 | 34.6893 | 235.189 |
| 5 | 20543 | 47866 | 2976.66 | 38.129 | 34.6887 | 235.222 |
| 5 | 20544 | 47812 | 2966.85 | 38.035 | 34.6880 | 235.255 |
| 5 | 20545 | 47760 | 2957.09 | 37.928 | 34.6872 | 235.287 |
| 5 | 20546 | 47709 | 2947.38 | 37.825 | 34.6864 | 235.320 |
| 5 | 20547 | 47659 | 2937.70 | 37.745 | 34.6855 | 235.353 |
| 5 | 20548 | 47610 | 2928.02 | 37.669 | 34.6845 | 235.385 |
| 5 | 20549 | 47562 | 2918.37 | 37.549 | 34.6834 | 235.417 |
| 5 | 20550 | 47515 | 2908.81 | 37.391 | 34.6822 | 235.450 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 20451 | 52628 | 3864.84 | 40.809 | 34.3463 | 231.780 |
| 5 | 20452 | 52566 | 3855.07 | 40.751 | 34.3547 | 231.821 |
| 5 | 20453 | 52505 | 3845.30 | 40.687 | 34.3630 | 231.863 |
| 5 | 20454 | 52443 | 3835.52 | 40.619 | 34.3712 | 231.904 |
| 5 | 20455 | 52382 | 3825.74 | 40.541 | 34.3793 | 231.945 |
| 5 | 20456 | 52322 | 3815.96 | 40.330 | 34.3873 | 231.986 |
| 5 | 20457 | 52262 | 3806.25 | 39.969 | 34.3952 | 232.027 |
| 5 | 20458 | 52202 | 3796.79 | 39.381 | 34.4029 | 232.068 |
| 5 | 20459 | 52142 | 3787.78 | 38.882 | 34.4106 | 232.109 |
| 5 | 20460 | 52083 | 3779.07 | 39.071 | 34.4181 | 232.149 |
| 5 | 20461 | 52025 | 3770.03 | 39.791 | 34.4255 | 232.190 |
| 5 | 20462 | 51966 | 3760.54 | 40.406 | 34.4329 | 232.231 |
| 5 | 20463 | 51909 | 3750.75 | 40.654 | 34.4401 | 232.271 |
| 5 | 20464 | 51851 | 3740.81 | 40.635 | 34.4472 | 232.311 |
| 5 | 20465 | 51795 | 3730.90 | 40.495 | 34.4542 | 232.352 |
| 5 | 20466 | 51739 | 3721.05 | 40.340 | 34.4611 | 232.392 |
| 5 | 20467 | 51684 | 3711.23 | 40.177 | 34.4679 | 232.432 |
| 5 | 20468 | 51630 | 3701.43 | 40.009 | 34.4745 | 232.472 |
| 5 | 20469 | 51578 | 3691.66 | 39.864 | 34.4811 | 232.512 |
| 5 | 20470 | 51526 | 3681.95 | 39.718 | 34.4876 | 232.552 |
| 5 | 20471 | 51477 | 3672.33 | 39.558 | 34.4939 | 232.592 |
| 5 | 20472 | 51429 | 3662.80 | 39.398 | 34.5002 | 232.632 |
| 5 | 20473 | 51383 | 3653.28 | 39.447 | 34.5064 | 232.671 |
| 5 | 20474 | 51338 | 3643.71 | 39.440 | 34.5125 | 232.711 |
| 5 | 20475 | 51296 | 3634.15 | 39.337 | 34.5184 | 232.751 |
| 5 | 20476 | 51255 | 3624.64 | 39.192 | 34.5243 | 232.790 |
| 5 | 20477 | 51216 | 3615.16 | 39.106 | 34.5301 | 232.829 |
| 5 | 20478 | 51177 | 3605.71 | 39.065 | 34.5358 | 232.868 |
| 5 | 20479 | 51140 | 3596.29 | 38.987 | 34.5414 | 232.908 |
| 5 | 20480 | 51103 | 3586.92 | 38.874 | 34.5469 | 232.947 |
| 5 | 20481 | 51067 | 3577.65 | 38.763 | 34.5523 | 232.986 |
| 5 | 20482 | 51032 | 3568.41 | 38.755 | 34.5576 | 233.025 |
| 5 | 20483 | 50997 | 3559.18 | 38.789 | 34.5628 | 233.063 |
| 5 | 20484 | 50962 | 3549.94 | 38.841 | 34.5679 | 233.102 |
| 5 | 20485 | 50927 | 3540.67 | 38.902 | 34.5728 | 233.141 |
| 5 | 20486 | 50892 | 3531.48 | 38.969 | 34.5777 | 233.179 |
| 5 | 20487 | 50857 | 3522.29 | 39.022 | 34.5825 | 233.218 |
| 5 | 20488 | 50821 | 3513.09 | 39.080 | 34.5872 | 233.256 |
| 5 | 20489 | 50785 | 3503.88 | 39.130 | 34.5917 | 233.294 |
| 5 | 20490 | 50748 | 3494.66 | 39.174 | 34.5962 | 233.333 |
| 5 | 20491 | 50710 | 3485.44 | 39.221 | 34.6005 | 233.371 |
| 5 | 20492 | 50671 | 3476.23 | 39.255 | 34.6048 | 233.409 |
| 5 | 20493 | 50632 | 3467.02 | 39.307 | 34.6089 | 233.447 |
| 5 | 20494 | 50592 | 3457.80 | 39.359 | 34.6130 | 233.485 |
| 5 | 20495 | 50551 | 3448.59 | 39.411 | 34.6169 | 233.523 |
| 5 | 20496 | 50509 | 3439.37 | 39.472 | 34.6207 | 233.560 |
| 5 | 20497 | 50466 | 3430.14 | 39.522 | 34.6244 | 233.598 |
| 5 | 20498 | 50421 | 3420.90 | 39.572 | 34.6280 | 233.635 |
| 5 | 20499 | 50376 | 3411.65 | 39.603 | 34.6316 | 233.673 |
| 5 | 20500 | 50330 | 3402.39 | 39.612 | 34.6350 | 233.710 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 20401 | 54852 | 4357.33 | 40.513 | 33.7754 | 229.631 |
| 5 | 20402 | 54863 | 4347.62 | 40.631 | 33.7899 | 229.675 |
| 5 | 20403 | 54872 | 4337.94 | 40.731 | 33.8043 | 229.719 |
| 5 | 20404 | 54879 | 4328.28 | 40.782 | 33.8185 | 229.763 |
| 5 | 20405 | 54882 | 4318.64 | 40.815 | 33.8326 | 229.808 |
| 5 | 20406 | 54883 | 4309.02 | 40.888 | 33.8466 | 229.852 |
| 5 | 20407 | 54879 | 4299.42 | 40.995 | 33.8604 | 229.896 |
| 5 | 20408 | 54872 | 4289.81 | 41.111 | 33.8741 | 229.940 |
| 5 | 20409 | 54861 | 4280.18 | 41.271 | 33.8877 | 229.984 |
| 5 | 20410 | 54847 | 4270.45 | 41.541 | 33.9012 | 230.028 |
| 5 | 20411 | 54828 | 4260.62 | 41.775 | 33.9145 | 230.072 |
| 5 | 20412 | 54805 | 4250.73 | 41.912 | 33.9277 | 230.116 |
| 5 | 20413 | 54779 | 4240.80 | 41.977 | 33.9407 | 230.159 |
| 5 | 20414 | 54749 | 4230.87 | 42.083 | 33.9537 | 230.203 |
| 5 | 20415 | 54715 | 4220.88 | 42.265 | 33.9665 | 230.247 |
| 5 | 20416 | 54677 | 4210.81 | 42.400 | 33.9791 | 230.291 |
| 5 | 20417 | 54636 | 4200.70 | 42.452 | 33.9917 | 230.334 |
| 5 | 20418 | 54591 | 4190.58 | 42.452 | 34.0041 | 230.378 |
| 5 | 20419 | 54544 | 4180.46 | 42.423 | 34.0163 | 230.421 |
| 5 | 20420 | 54494 | 4170.35 | 42.409 | 34.0285 | 230.465 |
| 5 | 20421 | 54441 | 4160.21 | 42.395 | 34.0405 | 230.508 |
| 5 | 20422 | 54386 | 4150.06 | 42.379 | 34.0524 | 230.551 |
| 5 | 20423 | 54329 | 4139.89 | 42.355 | 34.0642 | 230.595 |
| 5 | 20424 | 54271 | 4129.70 | 42.326 | 34.0758 | 230.638 |
| 5 | 20425 | 54211 | 4119.52 | 42.275 | 34.0873 | 230.681 |
| 5 | 20426 | 54151 | 4109.35 | 42.224 | 34.0987 | 230.724 |
| 5 | 20427 | 54090 | 4099.17 | 42.175 | 34.1100 | 230.767 |
| 5 | 20428 | 54028 | 4088.99 | 42.101 | 34.1211 | 230.810 |
| 5 | 20429 | 53966 | 4078.81 | 42.014 | 34.1322 | 230.853 |
| 5 | 20430 | 53904 | 4068.76 | 41.943 | 34.1431 | 230.896 |
| 5 | 20431 | 53842 | 4059.03 | 41.892 | 34.1539 | 230.939 |
| 5 | 20432 | 53780 | 4049.31 | 41.840 | 34.1646 | 230.981 |
| 5 | 20433 | 53719 | 4039.59 | 41.781 | 34.1752 | 231.024 |
| 5 | 20434 | 53658 | 4029.88 | 41.699 | 34.1857 | 231.067 |
| 5 | 20435 | 53597 | 4020.19 | 41.638 | 34.1960 | 231.109 |
| 5 | 20436 | 53537 | 4010.50 | 41.647 | 34.2063 | 231.152 |
| 5 | 20437 | 53476 | 4000.78 | 41.623 | 34.2164 | 231.194 |
| 5 | 20438 | 53416 | 3991.05 | 41.533 | 34.2264 | 231.236 |
| 5 | 20439 | 53356 | 3981.37 | 41.398 | 34.2363 | 231.279 |
| 5 | 20440 | 53296 | 3971.75 | 41.298 | 34.2461 | 231.321 |
| 5 | 20441 | 53236 | 3962.13 | 41.274 | 34.2558 | 231.363 |
| 5 | 20442 | 53176 | 3952.48 | 41.208 | 34.2654 | 231.405 |
| 5 | 20443 | 53116 | 3942.81 | 41.233 | 34.2748 | 231.447 |
| 5 | 20444 | 53055 | 3932.98 | 41.954 | 34.2842 | 231.489 |
| 5 | 20445 | 52995 | 3922.81 | 41.980 | 34.2934 | 231.531 |
| 5 | 20446 | 52934 | 3912.91 | 41.077 | 34.3025 | 231.572 |
| 5 | 20447 | 52873 | 3903.36 | 40.640 | 34.3115 | 231.614 |
| 5 | 20448 | 52812 | 3893.87 | 40.588 | 34.3204 | 231.656 |
| 5 | 20449 | 52751 | 3884.29 | 40.701 | 34.3291 | 231.697 |
| 5 | 20450 | 52689 | 3874.59 | 40.797 | 34.3378 | 231.739 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20351 | 56748 | 4828.28 | 39.255 | 32.9985 | 227.312 |
| 5 | 20352 | 56693 | 4819.45 | 39.230 | 33.0138 | 227.360 |
| 5 | 20353 | 56638 | 4810.58 | 39.207 | 33.0291 | 227.409 |
| 5 | 20354 | 56583 | 4801.68 | 39.182 | 33.0445 | 227.458 |
| 5 | 20355 | 56528 | 4792.77 | 39.153 | 33.0598 | 227.506 |
| 5 | 20356 | 56473 | 4783.83 | 39.129 | 33.0752 | 227.555 |
| 5 | 20357 | 56417 | 4774.88 | 39.103 | 33.0906 | 227.603 |
| 5 | 20358 | 56361 | 4765.92 | 39.074 | 33.1061 | 227.651 |
| 5 | 20359 | 56306 | 4756.95 | 39.066 | 33.1215 | 227.699 |
| 5 | 20360 | 56250 | 4747.97 | 39.060 | 33.1370 | 227.748 |
| 5 | 20361 | 56194 | 4738.96 | 39.058 | 33.1525 | 227.795 |
| 5 | 20362 | 56139 | 4729.91 | 39.047 | 33.1680 | 227.843 |
| 5 | 20363 | 56083 | 4720.85 | 39.022 | 33.1835 | 227.891 |
| 5 | 20364 | 56028 | 4711.79 | 38.998 | 33.1991 | 227.939 |
| 5 | 20365 | 55973 | 4702.70 | 38.978 | 33.2147 | 227.986 |
| 5 | 20366 | 55918 | 4693.56 | 38.988 | 33.2302 | 228.034 |
| 5 | 20367 | 55863 | 4684.44 | 38.997 | 33.2459 | 228.081 |
| 5 | 20368 | 55808 | 4675.29 | 39.013 | 33.2615 | 228.128 |
| 5 | 20369 | 55754 | 4666.12 | 39.022 | 33.2771 | 228.175 |
| 5 | 20370 | 55699 | 4656.93 | 39.030 | 33.2928 | 228.222 |
| 5 | 20371 | 55645 | 4647.71 | 39.038 | 33.3085 | 228.269 |
| 5 | 20372 | 55590 | 4638.48 | 39.038 | 33.3242 | 228.316 |
| 5 | 20373 | 55536 | 4629.21 | 39.047 | 33.3399 | 228.363 |
| 5 | 20374 | 55481 | 4619.90 | 39.057 | 33.3557 | 228.409 |
| 5 | 20375 | 55426 | 4610.55 | 39.064 | 33.3715 | 228.456 |
| 5 | 20376 | 55371 | 4601.19 | 39.088 | 33.3872 | 228.502 |
| 5 | 20377 | 55316 | 4591.80 | 39.127 | 33.4031 | 228.548 |
| 5 | 20378 | 55260 | 4582.34 | 39.228 | 33.4189 | 228.594 |
| 5 | 20379 | 55206 | 4572.78 | 39.329 | 33.4348 | 228.640 |
| 5 | 20380 | 55152 | 4563.16 | 39.362 | 33.4506 | 228.686 |
| 5 | 20381 | 55101 | 4553.52 | 39.375 | 33.4665 | 228.732 |
| 5 | 20382 | 55052 | 4543.85 | 39.374 | 33.4824 | 228.778 |
| 5 | 20383 | 55006 | 4534.17 | 39.392 | 33.4983 | 228.823 |
| 5 | 20384 | 54963 | 4524.48 | 39.414 | 33.5141 | 228.869 |
| 5 | 20385 | 54924 | 4514.75 | 39.441 | 33.5300 | 228.914 |
| 5 | 20386 | 54889 | 4505.00 | 39.476 | 33.5458 | 228.960 |
| 5 | 20387 | 54859 | 4495.22 | 39.506 | 33.5616 | 229.005 |
| 5 | 20388 | 54834 | 4485.40 | 39.564 | 33.5774 | 229.050 |
| 5 | 20389 | 54813 | 4475.53 | 39.629 | 33.5931 | 229.095 |
| 5 | 20390 | 54797 | 4465.64 | 39.706 | 33.6087 | 229.140 |
| 5 | 20391 | 54786 | 4455.75 | 39.778 | 33.6243 | 229.185 |
| 5 | 20392 | 54779 | 4445.86 | 39.843 | 33.6399 | 229.230 |
| 5 | 20393 | 54776 | 4435.98 | 39.911 | 33.6553 | 229.275 |
| 5 | 20394 | 54778 | 4426.09 | 39.975 | 33.6707 | 229.319 |
| 5 | 20395 | 54783 | 4416.21 | 40.052 | 33.6860 | 229.364 |
| 5 | 20396 | 54790 | 4406.33 | 40.138 | 33.7012 | 229.408 |
| 5 | 20397 | 54801 | 4396.46 | 40.221 | 33.7162 | 229.453 |
| 5 | 20398 | 54813 | 4386.62 | 40.290 | 33.7312 | 229.498 |
| 5 | 20399 | 54826 | 4376.82 | 40.360 | 33.7461 | 229.542 |
| 5 | 20400 | 54839 | 4367.05 | 40.422 | 33.7608 | 229.586 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20301 | 59233 | 5225.80 | 39.244 | 32.2547 | 224.754 |
| 5 | 20302 | 59183 | 5218.38 | 39.239 | 32.2693 | 224.807 |
| 5 | 20303 | 59133 | 5210.93 | 39.237 | 32.2838 | 224.860 |
| 5 | 20304 | 59082 | 5203.43 | 39.230 | 32.2984 | 224.913 |
| 5 | 20305 | 59031 | 5195.90 | 39.221 | 32.3130 | 224.966 |
| 5 | 20306 | 58980 | 5188.35 | 39.211 | 32.3275 | 225.019 |
| 5 | 20307 | 58930 | 5180.79 | 39.205 | 32.3421 | 225.072 |
| 5 | 20308 | 58879 | 5173.27 | 39.208 | 32.3568 | 225.125 |
| 5 | 20309 | 58828 | 5165.72 | 39.201 | 32.3714 | 225.177 |
| 5 | 20310 | 58777 | 5158.12 | 39.190 | 32.3860 | 225.230 |
| 5 | 20311 | 58726 | 5150.49 | 39.187 | 32.4007 | 225.282 |
| 5 | 20312 | 58676 | 5142.82 | 39.181 | 32.4153 | 225.335 |
| 5 | 20313 | 58626 | 5135.13 | 39.171 | 32.4300 | 225.387 |
| 5 | 20314 | 58576 | 5127.42 | 39.148 | 32.4447 | 225.439 |
| 5 | 20315 | 58526 | 5119.68 | 39.109 | 32.4594 | 225.491 |
| 5 | 20316 | 58476 | 5111.95 | 39.051 | 32.4741 | 225.543 |
| 5 | 20317 | 58426 | 5104.21 | 39.023 | 32.4888 | 225.595 |
| 5 | 20318 | 58377 | 5096.44 | 39.031 | 32.5036 | 225.647 |
| 5 | 20319 | 58328 | 5088.65 | 39.061 | 32.5183 | 225.699 |
| 5 | 20320 | 58280 | 5080.82 | 39.063 | 32.5331 | 225.751 |
| 5 | 20321 | 58231 | 5072.98 | 39.043 | 32.5479 | 225.803 |
| 5 | 20322 | 58183 | 5065.14 | 39.031 | 32.5626 | 225.854 |
| 5 | 20323 | 58135 | 5057.28 | 39.024 | 32.5774 | 225.906 |
| 5 | 20324 | 58088 | 5049.41 | 39.020 | 32.5923 | 225.957 |
| 5 | 20325 | 58040 | 5041.53 | 39.010 | 32.6071 | 226.008 |
| 5 | 20326 | 57993 | 5033.63 | 39.008 | 32.6219 | 226.060 |
| 5 | 20327 | 57946 | 5025.77 | 39.002 | 32.6368 | 226.111 |
| 5 | 20328 | 57898 | 5017.95 | 39.030 | 32.6517 | 226.162 |
| 5 | 20329 | 57851 | 5010.10 | 39.069 | 32.6666 | 226.213 |
| 5 | 20330 | 57804 | 5002.22 | 39.094 | 32.6815 | 226.264 |
| 5 | 20331 | 57757 | 4994.31 | 39.123 | 32.6964 | 226.315 |
| 5 | 20332 | 57710 | 4986.37 | 39.152 | 32.7113 | 226.365 |
| 5 | 20333 | 57662 | 4978.38 | 39.184 | 32.7263 | 226.416 |
| 5 | 20334 | 57614 | 4970.34 | 39.209 | 32.7412 | 226.467 |
| 5 | 20335 | 57566 | 4962.21 | 39.247 | 32.7562 | 226.517 |
| 5 | 20336 | 57518 | 4954.03 | 39.260 | 32.7712 | 226.567 |
| 5 | 20337 | 57469 | 4945.81 | 39.253 | 32.7862 | 226.618 |
| 5 | 20338 | 57420 | 4937.58 | 39.231 | 32.8013 | 226.668 |
| 5 | 20339 | 57371 | 4929.34 | 39.210 | 32.8163 | 226.718 |
| 5 | 20340 | 57321 | 4921.10 | 39.192 | 32.8314 | 226.768 |
| 5 | 20341 | 57271 | 4912.85 | 39.169 | 32.8465 | 226.818 |
| 5 | 20342 | 57221 | 4904.60 | 39.149 | 32.8616 | 226.868 |
| 5 | 20343 | 57170 | 4896.34 | 39.147 | 32.8767 | 226.917 |
| 5 | 20344 | 57118 | 4888.07 | 39.167 | 32.8919 | 226.967 |
| 5 | 20345 | 57067 | 4879.75 | 39.186 | 32.9070 | 227.016 |
| 5 | 20346 | 57014 | 4871.40 | 39.207 | 32.9222 | 227.066 |
| 5 | 20347 | 56962 | 4862.98 | 39.223 | 32.9374 | 227.115 |
| 5 | 20348 | 56909 | 4854.46 | 39.240 | 32.9527 | 227.164 |
| 5 | 20349 | 56856 | 4845.78 | 39.254 | 32.9679 | 227.214 |
| 5 | 20350 | 56802 | 4837.05 | 39.269 | 32.9832 | 227.263 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20251 | 61320 | 5560.18 | 39.592 | 31.5400 | 222.005 |
| 5 | 20252 | 61287 | 5553.94 | 39.506 | 31.5542 | 222.061 |
| 5 | 20253 | 61253 | 5547.72 | 39.391 | 31.5683 | 222.118 |
| 5 | 20254 | 61219 | 5541.53 | 39.300 | 31.5824 | 222.174 |
| 5 | 20255 | 61185 | 5535.34 | 39.253 | 31.5966 | 222.231 |
| 5 | 20256 | 61151 | 5529.14 | 39.243 | 31.6107 | 222.287 |
| 5 | 20257 | 61116 | 5522.92 | 39.258 | 31.6248 | 222.343 |
| 5 | 20258 | 61082 | 5516.69 | 39.261 | 31.6390 | 222.400 |
| 5 | 20259 | 61046 | 5510.41 | 39.259 | 31.6531 | 222.456 |
| 5 | 20260 | 61011 | 5504.09 | 39.251 | 31.6673 | 222.512 |
| 5 | 20261 | 60975 | 5497.75 | 39.257 | 31.6815 | 222.568 |
| 5 | 20262 | 60938 | 5491.39 | 39.263 | 31.6956 | 222.624 |
| 5 | 20263 | 60901 | 5485.02 | 39.266 | 31.7098 | 222.680 |
| 5 | 20264 | 60864 | 5478.64 | 39.267 | 31.7240 | 222.735 |
| 5 | 20265 | 60826 | 5472.24 | 39.265 | 31.7382 | 222.791 |
| 5 | 20266 | 60788 | 5465.82 | 39.254 | 31.7524 | 222.847 |
| 5 | 20267 | 60749 | 5459.38 | 39.251 | 31.7666 | 222.903 |
| 5 | 20268 | 60710 | 5452.92 | 39.256 | 31.7808 | 222.958 |
| 5 | 20269 | 60670 | 5446.44 | 39.260 | 31.7951 | 223.014 |
| 5 | 20270 | 60630 | 5439.95 | 39.257 | 31.8093 | 223.069 |
| 5 | 20271 | 60590 | 5433.45 | 39.258 | 31.8235 | 223.124 |
| 5 | 20272 | 60549 | 5426.96 | 39.252 | 31.8378 | 223.180 |
| 5 | 20273 | 60508 | 5420.45 | 39.257 | 31.8520 | 223.235 |
| 5 | 20274 | 60466 | 5413.91 | 39.263 | 31.8663 | 223.290 |
| 5 | 20275 | 60424 | 5407.34 | 39.270 | 31.8806 | 223.345 |
| 5 | 20276 | 60382 | 5400.75 | 39.280 | 31.8948 | 223.400 |
| 5 | 20277 | 60339 | 5394.13 | 39.282 | 31.9091 | 223.455 |
| 5 | 20278 | 60296 | 5387.49 | 39.287 | 31.9234 | 223.510 |
| 5 | 20279 | 60253 | 5380.83 | 39.287 | 31.9377 | 223.565 |
| 5 | 20280 | 60210 | 5374.16 | 39.290 | 31.9520 | 223.620 |
| 5 | 20281 | 60167 | 5367.45 | 39.297 | 31.9663 | 223.675 |
| 5 | 20282 | 60123 | 5360.72 | 39.301 | 31.9807 | 223.729 |
| 5 | 20283 | 60079 | 5353.96 | 39.313 | 31.9950 | 223.784 |
| 5 | 20284 | 60035 | 5347.16 | 39.318 | 32.0093 | 223.838 |
| 5 | 20285 | 59991 | 5340.34 | 39.323 | 32.0237 | 223.893 |
| 5 | 20286 | 59946 | 5333.50 | 39.328 | 32.0380 | 223.947 |
| 5 | 20287 | 59901 | 5326.58 | 39.325 | 32.0524 | 224.001 |
| 5 | 20288 | 59856 | 5319.56 | 39.319 | 32.0668 | 224.056 |
| 5 | 20289 | 59810 | 5312.52 | 39.312 | 32.0812 | 224.110 |
| 5 | 20290 | 59764 | 5305.44 | 39.308 | 32.0956 | 224.164 |
| 5 | 20291 | 59718 | 5298.34 | 39.301 | 32.1100 | 224.218 |
| 5 | 20292 | 59671 | 5291.22 | 39.301 | 32.1244 | 224.272 |
| 5 | 20293 | 59624 | 5284.05 | 39.297 | 32.1388 | 224.326 |
| 5 | 20294 | 59576 | 5276.86 | 39.289 | 32.1533 | 224.379 |
| 5 | 20295 | 59528 | 5269.65 | 39.284 | 32.1677 | 224.433 |
| 5 | 20296 | 59480 | 5262.41 | 39.278 | 32.1822 | 224.487 |
| 5 | 20297 | 59431 | 5255.14 | 39.275 | 32.1967 | 224.540 |
| 5 | 20298 | 59382 | 5247.85 | 39.264 | 32.2112 | 224.594 |
| 5 | 20299 | 59333 | 5240.54 | 39.263 | 32.2257 | 224.647 |
| 5 | 20300 | 59283 | 5233.19 | 39.250 | 32.2402 | 224.701 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20201 | 63383 | 5847.32 | 40.131 | 30.8314 | 219.108 |
| 5 | 20202 | 63343 | 5842.03 | 40.151 | 30.8456 | 219.168 |
| 5 | 20203 | 63302 | 5836.70 | 40.166 | 30.8598 | 219.227 |
| 5 | 20204 | 63261 | 5831.33 | 40.163 | 30.8740 | 219.286 |
| 5 | 20205 | 63220 | 5825.92 | 40.151 | 30.8883 | 219.345 |
| 5 | 20206 | 63179 | 5820.51 | 40.125 | 30.9025 | 219.404 |
| 5 | 20207 | 63137 | 5815.09 | 40.093 | 30.9167 | 219.463 |
| 5 | 20208 | 63096 | 5809.66 | 40.061 | 30.9309 | 219.522 |
| 5 | 20209 | 63054 | 5804.22 | 40.031 | 30.9451 | 219.580 |
| 5 | 20210 | 63012 | 5798.78 | 40.002 | 30.9593 | 219.639 |
| 5 | 20211 | 62970 | 5793.35 | 39.991 | 30.9735 | 219.698 |
| 5 | 20212 | 62927 | 5787.94 | 40.000 | 30.9877 | 219.757 |
| 5 | 20213 | 62884 | 5782.51 | 40.028 | 31.0019 | 219.815 |
| 5 | 20214 | 62841 | 5777.05 | 40.036 | 31.0161 | 219.874 |
| 5 | 20215 | 62798 | 5771.56 | 40.039 | 31.0303 | 219.932 |
| 5 | 20216 | 62755 | 5766.04 | 40.044 | 31.0445 | 219.991 |
| 5 | 20217 | 62711 | 5760.49 | 40.050 | 31.0587 | 220.049 |
| 5 | 20218 | 62668 | 5754.92 | 40.056 | 31.0729 | 220.108 |
| 5 | 20219 | 62624 | 5749.31 | 40.058 | 31.0871 | 220.166 |
| 5 | 20220 | 62580 | 5743.68 | 40.063 | 31.1013 | 220.224 |
| 5 | 20221 | 62536 | 5738.03 | 40.070 | 31.1155 | 220.282 |
| 5 | 20222 | 62492 | 5732.34 | 40.082 | 31.1296 | 220.341 |
| 5 | 20223 | 62448 | 5726.63 | 40.096 | 31.1438 | 220.399 |
| 5 | 20224 | 62404 | 5720.89 | 40.074 | 31.1580 | 220.457 |
| 5 | 20225 | 62360 | 5715.15 | 40.028 | 31.1722 | 220.515 |
| 5 | 20226 | 62317 | 5709.40 | 39.972 | 31.1863 | 220.573 |
| 5 | 20227 | 62273 | 5703.64 | 39.921 | 31.2005 | 220.631 |
| 5 | 20228 | 62229 | 5697.87 | 39.897 | 31.2147 | 220.689 |
| 5 | 20229 | 62185 | 5692.08 | 39.878 | 31.2289 | 220.747 |
| 5 | 20230 | 62142 | 5686.26 | 39.850 | 31.2430 | 220.804 |
| 5 | 20231 | 62098 | 5680.41 | 39.818 | 31.2572 | 220.862 |
| 5 | 20232 | 62055 | 5674.51 | 39.822 | 31.2714 | 220.920 |
| 5 | 20233 | 62011 | 5668.54 | 39.859 | 31.2855 | 220.977 |
| 5 | 20234 | 61969 | 5662.55 | 39.836 | 31.2997 | 221.035 |
| 5 | 20235 | 61926 | 5656.48 | 39.745 | 31.3138 | 221.092 |
| 5 | 20236 | 61884 | 5650.53 | 39.596 | 31.3280 | 221.150 |
| 5 | 20237 | 61843 | 5644.63 | 39.492 | 31.3421 | 221.207 |
| 5 | 20238 | 61802 | 5638.71 | 39.494 | 31.3563 | 221.265 |
| 5 | 20239 | 61761 | 5632.78 | 39.301 | 31.3705 | 221.322 |
| 5 | 20240 | 61721 | 5626.84 | 39.615 | 31.3846 | 221.379 |
| 5 | 20241 | 61681 | 5620.70 | 40.252 | 31.3987 | 221.436 |
| 5 | 20242 | 61642 | 5614.27 | 40.557 | 31.4129 | 221.493 |
| 5 | 20243 | 61604 | 5607.93 | 39.710 | 31.4270 | 221.550 |
| 5 | 20244 | 61567 | 5602.13 | 38.630 | 31.4412 | 221.607 |
| 5 | 20245 | 61530 | 5596.46 | 38.560 | 31.4553 | 221.664 |
| 5 | 20246 | 61493 | 5590.67 | 38.914 | 31.4694 | 221.721 |
| 5 | 20247 | 61458 | 5584.70 | 39.231 | 31.4836 | 221.778 |
| 5 | 20248 | 61423 | 5578.66 | 39.398 | 31.4977 | 221.835 |
| 5 | 20249 | 61388 | 5572.56 | 39.497 | 31.5118 | 221.892 |
| 5 | 20250 | 61354 | 5566.40 | 39.589 | 31.5259 | 221.948 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20151 | 65049 | 6098.10 | 39.106 | 30.1139 | 216.096 |
| 5 | 20152 | 65021 | 6093.19 | 39.133 | 30.1284 | 216.158 |
| 5 | 20153 | 64992 | 6088.25 | 39.154 | 30.1428 | 216.219 |
| 5 | 20154 | 64963 | 6083.31 | 39.156 | 30.1573 | 216.280 |
| 5 | 20155 | 64935 | 6078.38 | 39.137 | 30.1718 | 216.341 |
| 5 | 20156 | 64906 | 6073.55 | 39.118 | 30.1863 | 216.402 |
| 5 | 20157 | 64876 | 6068.80 | 39.102 | 30.2007 | 216.463 |
| 5 | 20158 | 64847 | 6064.05 | 39.082 | 30.2152 | 216.524 |
| 5 | 20159 | 64818 | 6059.31 | 39.079 | 30.2297 | 216.585 |
| 5 | 20160 | 64789 | 6054.56 | 39.107 | 30.2441 | 216.646 |
| 5 | 20161 | 64759 | 6049.81 | 39.182 | 30.2585 | 216.707 |
| 5 | 20162 | 64729 | 6045.01 | 39.269 | 30.2730 | 216.768 |
| 5 | 20163 | 64699 | 6040.19 | 39.328 | 30.2874 | 216.828 |
| 5 | 20164 | 64669 | 6035.35 | 39.383 | 30.3018 | 216.889 |
| 5 | 20165 | 64639 | 6030.47 | 39.432 | 30.3162 | 216.950 |
| 5 | 20166 | 64609 | 6025.54 | 39.478 | 30.3306 | 217.011 |
| 5 | 20167 | 64578 | 6020.57 | 39.514 | 30.3450 | 217.071 |
| 5 | 20168 | 64548 | 6015.56 | 39.535 | 30.3594 | 217.132 |
| 5 | 20169 | 64517 | 6010.53 | 39.544 | 30.3738 | 217.192 |
| 5 | 20170 | 64486 | 6005.51 | 39.549 | 30.3882 | 217.253 |
| 5 | 20171 | 64455 | 6000.51 | 39.549 | 30.4025 | 217.313 |
| 5 | 20172 | 64423 | 5995.52 | 39.546 | 30.4169 | 217.374 |
| 5 | 20173 | 64392 | 5990.52 | 39.551 | 30.4312 | 217.434 |
| 5 | 20174 | 64360 | 5985.53 | 39.555 | 30.4456 | 217.495 |
| 5 | 20175 | 64327 | 5980.56 | 39.556 | 30.4600 | 217.555 |
| 5 | 20176 | 64295 | 5975.61 | 39.551 | 30.4743 | 217.615 |
| 5 | 20177 | 64262 | 5970.64 | 39.560 | 30.4886 | 217.675 |
| 5 | 20178 | 64229 | 5965.64 | 39.633 | 30.5030 | 217.736 |
| 5 | 20179 | 64196 | 5960.58 | 39.722 | 30.5173 | 217.796 |
| 5 | 20180 | 64162 | 5955.47 | 39.794 | 30.5316 | 217.856 |
| 5 | 20181 | 64128 | 5950.33 | 39.859 | 30.5459 | 217.916 |
| 5 | 20182 | 64094 | 5945.15 | 39.910 | 30.5602 | 217.976 |
| 5 | 20183 | 64060 | 5939.93 | 39.925 | 30.5745 | 218.036 |
| 5 | 20184 | 64025 | 5934.71 | 39.914 | 30.5888 | 218.096 |
| 5 | 20185 | 63990 | 5929.49 | 39.891 | 30.6031 | 218.156 |
| 5 | 20186 | 63954 | 5924.31 | 39.871 | 30.6174 | 218.216 |
| 5 | 20187 | 63918 | 5919.21 | 39.866 | 30.6317 | 218.276 |
| 5 | 20188 | 63882 | 5914.16 | 39.880 | 30.6460 | 218.335 |
| 5 | 20189 | 63846 | 5909.06 | 39.906 | 30.6603 | 218.395 |
| 5 | 20190 | 63809 | 5903.96 | 39.926 | 30.6746 | 218.455 |
| 5 | 20191 | 63772 | 5898.87 | 39.940 | 30.6888 | 218.514 |
| 5 | 20192 | 63735 | 5893.77 | 39.948 | 30.7031 | 218.574 |
| 5 | 20193 | 63697 | 5888.66 | 39.951 | 30.7174 | 218.634 |
| 5 | 20194 | 63659 | 5883.55 | 39.952 | 30.7316 | 218.693 |
| 5 | 20195 | 63620 | 5878.43 | 39.946 | 30.7459 | 218.753 |
| 5 | 20196 | 63581 | 5873.30 | 39.943 | 30.7601 | 218.812 |
| 5 | 20197 | 63542 | 5868.16 | 39.970 | 30.7744 | 218.871 |
| 5 | 20198 | 63503 | 5863.01 | 40.018 | 30.7886 | 218.931 |
| 5 | 20199 | 63463 | 5857.82 | 40.073 | 30.8029 | 218.990 |
| 5 | 20200 | 63423 | 5852.59 | 40.103 | 30.8171 | 219.049 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20101 | 66578 | 6329.52 | 40.051 | 29.3766 | 212.993 |
| 5 | 20102 | 66545 | 6325.10 | 40.034 | 29.3916 | 213.055 |
| 5 | 20103 | 66511 | 6320.68 | 40.013 | 29.4067 | 213.118 |
| 5 | 20104 | 66478 | 6316.23 | 39.992 | 29.4216 | 213.181 |
| 5 | 20105 | 66445 | 6311.77 | 39.967 | 29.4366 | 213.244 |
| 5 | 20106 | 66412 | 6307.29 | 39.946 | 29.4516 | 213.307 |
| 5 | 20107 | 66379 | 6302.79 | 39.915 | 29.4666 | 213.369 |
| 5 | 20108 | 66346 | 6298.29 | 39.853 | 29.4815 | 213.432 |
| 5 | 20109 | 66313 | 6293.81 | 39.777 | 29.4964 | 213.495 |
| 5 | 20110 | 66281 | 6289.34 | 39.710 | 29.5114 | 213.557 |
| 5 | 20111 | 66248 | 6284.85 | 39.652 | 29.5263 | 213.620 |
| 5 | 20112 | 66216 | 6280.36 | 39.615 | 29.5412 | 213.682 |
| 5 | 20113 | 66184 | 6275.85 | 39.616 | 29.5560 | 213.745 |
| 5 | 20114 | 66151 | 6271.29 | 39.635 | 29.5709 | 213.807 |
| 5 | 20115 | 66119 | 6266.70 | 39.646 | 29.5858 | 213.870 |
| 5 | 20116 | 66087 | 6262.08 | 39.617 | 29.6006 | 213.932 |
| 5 | 20117 | 66056 | 6257.48 | 39.539 | 29.6155 | 213.995 |
| 5 | 20118 | 66024 | 6252.89 | 39.440 | 29.6303 | 214.057 |
| 5 | 20119 | 65992 | 6248.33 | 39.347 | 29.6451 | 214.119 |
| 5 | 20120 | 65961 | 6243.79 | 39.279 | 29.6599 | 214.182 |
| 5 | 20121 | 65929 | 6239.28 | 39.235 | 29.6747 | 214.244 |
| 5 | 20122 | 65898 | 6234.78 | 39.227 | 29.6895 | 214.306 |
| 5 | 20123 | 65867 | 6230.26 | 39.248 | 29.7043 | 214.368 |
| 5 | 20124 | 65836 | 6225.72 | 39.278 | 29.7191 | 214.430 |
| 5 | 20125 | 65805 | 6221.13 | 39.292 | 29.7338 | 214.493 |
| 5 | 20126 | 65774 | 6216.50 | 39.280 | 29.7485 | 214.555 |
| 5 | 20127 | 65744 | 6211.89 | 39.259 | 29.7633 | 214.617 |
| 5 | 20128 | 65713 | 6207.27 | 39.234 | 29.7780 | 214.679 |
| 5 | 20129 | 65683 | 6202.65 | 39.218 | 29.7927 | 214.741 |
| 5 | 20130 | 65653 | 6198.02 | 39.204 | 29.8074 | 214.803 |
| 5 | 20131 | 65623 | 6193.38 | 39.203 | 29.8221 | 214.865 |
| 5 | 20132 | 65593 | 6188.73 | 39.207 | 29.8368 | 214.927 |
| 5 | 20133 | 65564 | 6184.03 | 39.210 | 29.8514 | 214.989 |
| 5 | 20134 | 65535 | 6179.30 | 39.208 | 29.8661 | 215.050 |
| 5 | 20135 | 65506 | 6174.56 | 39.197 | 29.8807 | 215.112 |
| 5 | 20136 | 65477 | 6169.84 | 39.167 | 29.8954 | 215.174 |
| 5 | 20137 | 65448 | 6165.15 | 39.133 | 29.9100 | 215.236 |
| 5 | 20138 | 65420 | 6160.44 | 39.090 | 29.9246 | 215.297 |
| 5 | 20139 | 65391 | 6155.74 | 39.053 | 29.9392 | 215.359 |
| 5 | 20140 | 65363 | 6151.02 | 39.058 | 29.9538 | 215.421 |
| 5 | 20141 | 65334 | 6146.29 | 39.073 | 29.9684 | 215.482 |
| 5 | 20142 | 65306 | 6141.53 | 39.101 | 29.9830 | 215.544 |
| 5 | 20143 | 65277 | 6136.76 | 39.127 | 29.9976 | 215.605 |
| 5 | 20144 | 65249 | 6131.99 | 39.129 | 30.0121 | 215.667 |
| 5 | 20145 | 65220 | 6127.21 | 39.113 | 30.0267 | 215.728 |
| 5 | 20146 | 65192 | 6122.42 | 39.095 | 30.0412 | 215.790 |
| 5 | 20147 | 65164 | 6117.60 | 39.078 | 30.0558 | 215.851 |
| 5 | 20148 | 65135 | 6112.76 | 39.066 | 30.0703 | 215.913 |
| 5 | 20149 | 65107 | 6107.90 | 39.067 | 30.0848 | 215.974 |
| 5 | 20150 | 65078 | 6103.01 | 39.084 | 30.0993 | 216.035 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 20051 | 68149 | 6524.70 | 39.365 | 28.6089 | 209.816 |
| 5 | 20052 | 68121 | 6521.12 | 39.433 | 28.6245 | 209.880 |
| 5 | 20053 | 68093 | 6517.54 | 39.436 | 28.6402 | 209.944 |
| 5 | 20054 | 68065 | 6513.97 | 39.461 | 28.6559 | 210.008 |
| 5 | 20055 | 68037 | 6510.38 | 39.517 | 28.6715 | 210.072 |
| 5 | 20056 | 68009 | 6506.77 | 39.595 | 28.6872 | 210.136 |
| 5 | 20057 | 67981 | 6503.13 | 39.667 | 28.7028 | 210.200 |
| 5 | 20058 | 67953 | 6499.46 | 39.726 | 28.7184 | 210.264 |
| 5 | 20059 | 67924 | 6495.78 | 39.758 | 28.7340 | 210.328 |
| 5 | 20060 | 67896 | 6492.09 | 39.744 | 28.7496 | 210.392 |
| 5 | 20061 | 67867 | 6488.40 | 39.721 | 28.7651 | 210.456 |
| 5 | 20062 | 67838 | 6484.70 | 39.707 | 28.7807 | 210.520 |
| 5 | 20063 | 67809 | 6481.00 | 39.694 | 28.7962 | 210.584 |
| 5 | 20064 | 67780 | 6477.29 | 39.692 | 28.8117 | 210.648 |
| 5 | 20065 | 67750 | 6473.58 | 39.701 | 28.8272 | 210.712 |
| 5 | 20066 | 67721 | 6469.87 | 39.721 | 28.8427 | 210.775 |
| 5 | 20067 | 67691 | 6466.15 | 39.751 | 28.8582 | 210.839 |
| 5 | 20068 | 67661 | 6462.42 | 39.783 | 28.8737 | 210.903 |
| 5 | 20069 | 67631 | 6458.68 | 39.825 | 28.8891 | 210.967 |
| 5 | 20070 | 67600 | 6454.92 | 39.870 | 28.9046 | 211.030 |
| 5 | 20071 | 67569 | 6451.15 | 39.926 | 28.9200 | 211.094 |
| 5 | 20072 | 67539 | 6447.36 | 39.971 | 28.9354 | 211.158 |
| 5 | 20073 | 67508 | 6443.55 | 40.007 | 28.9508 | 211.221 |
| 5 | 20074 | 67476 | 6439.72 | 40.029 | 28.9662 | 211.285 |
| 5 | 20075 | 67445 | 6435.88 | 40.038 | 28.9816 | 211.349 |
| 5 | 20076 | 67413 | 6432.02 | 40.025 | 28.9969 | 211.412 |
| 5 | 20077 | 67381 | 6428.16 | 40.008 | 29.0123 | 211.476 |
| 5 | 20078 | 67349 | 6424.28 | 40.000 | 29.0276 | 211.539 |
| 5 | 20079 | 67316 | 6420.40 | 39.987 | 29.0429 | 211.603 |
| 5 | 20080 | 67284 | 6416.52 | 39.983 | 29.0582 | 211.666 |
| 5 | 20081 | 67251 | 6412.62 | 39.982 | 29.0735 | 211.730 |
| 5 | 20082 | 67218 | 6408.72 | 39.999 | 29.0888 | 211.793 |
| 5 | 20083 | 67185 | 6404.80 | 40.025 | 29.1041 | 211.856 |
| 5 | 20084 | 67152 | 6400.86 | 40.055 | 29.1193 | 211.920 |
| 5 | 20085 | 67119 | 6396.91 | 40.078 | 29.1346 | 211.983 |
| 5 | 20086 | 67085 | 6392.93 | 40.083 | 29.1498 | 212.046 |
| 5 | 20087 | 67051 | 6388.94 | 40.074 | 29.1650 | 212.110 |
| 5 | 20088 | 67018 | 6384.94 | 40.058 | 29.1802 | 212.173 |
| 5 | 20089 | 66984 | 6380.93 | 40.046 | 29.1954 | 212.236 |
| 5 | 20090 | 66950 | 6376.88 | 40.031 | 29.2106 | 212.299 |
| 5 | 20091 | 66917 | 6372.76 | 40.023 | 29.2257 | 212.362 |
| 5 | 20092 | 66883 | 6368.52 | 40.030 | 29.2409 | 212.426 |
| 5 | 20093 | 66849 | 6364.27 | 40.048 | 29.2560 | 212.489 |
| 5 | 20094 | 66815 | 6359.99 | 40.070 | 29.2711 | 212.552 |
| 5 | 20095 | 66781 | 6355.68 | 40.104 | 29.2862 | 212.615 |
| 5 | 20096 | 66747 | 6351.35 | 40.117 | 29.3013 | 212.678 |
| 5 | 20097 | 66713 | 6347.01 | 40.113 | 29.3164 | 212.741 |
| 5 | 20098 | 66679 | 6342.66 | 40.095 | 29.3315 | 212.804 |
| 5 | 20099 | 66646 | 6338.30 | 40.080 | 29.3465 | 212.867 |
| 5 | 20100 | 66612 | 6333.91 | 40.065 | 29.3616 | 212.930 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 20001 | 69448 | 6698.91 | 39.678 | 27.8046 | 206.582 |
| 5 | 20002 | 69426 | 6695.71 | 39.759 | 27.8210 | 206.647 |
| 5 | 20003 | 69404 | 6692.47 | 39.854 | 27.8375 | 206.712 |
| 5 | 20004 | 69382 | 6689.23 | 39.969 | 27.8539 | 206.777 |
| 5 | 20005 | 69359 | 6685.96 | 40.073 | 27.8704 | 206.843 |
| 5 | 20006 | 69336 | 6682.67 | 40.157 | 27.8868 | 206.908 |
| 5 | 20007 | 69313 | 6679.36 | 40.238 | 27.9032 | 206.973 |
| 5 | 20008 | 69289 | 6676.01 | 40.318 | 27.9196 | 207.038 |
| 5 | 20009 | 69266 | 6672.63 | 40.396 | 27.9359 | 207.103 |
| 5 | 20010 | 69242 | 6669.25 | 40.459 | 27.9523 | 207.168 |
| 5 | 20011 | 69218 | 6665.85 | 40.498 | 27.9686 | 207.233 |
| 5 | 20012 | 69193 | 6662.45 | 40.506 | 27.9849 | 207.298 |
| 5 | 20013 | 69169 | 6659.03 | 40.494 | 28.0012 | 207.363 |
| 5 | 20014 | 69144 | 6655.62 | 40.483 | 28.0175 | 207.428 |
| 5 | 20015 | 69119 | 6652.22 | 40.477 | 28.0337 | 207.493 |
| 5 | 20016 | 69094 | 6648.79 | 40.484 | 28.0500 | 207.557 |
| 5 | 20017 | 69068 | 6645.30 | 40.498 | 28.0662 | 207.622 |
| 5 | 20018 | 69042 | 6641.78 | 40.530 | 28.0824 | 207.687 |
| 5 | 20019 | 69016 | 6638.20 | 40.552 | 28.0986 | 207.752 |
| 5 | 20020 | 68990 | 6634.56 | 40.563 | 28.1148 | 207.817 |
| 5 | 20021 | 68964 | 6630.89 | 40.536 | 28.1310 | 207.882 |
| 5 | 20022 | 68937 | 6627.29 | 40.460 | 28.1471 | 207.946 |
| 5 | 20023 | 68911 | 6623.69 | 40.305 | 28.1633 | 208.011 |
| 5 | 20024 | 68884 | 6620.14 | 40.143 | 28.1794 | 208.076 |
| 5 | 20025 | 68857 | 6616.62 | 39.974 | 28.1955 | 208.141 |
| 5 | 20026 | 68830 | 6613.15 | 39.836 | 28.2116 | 208.205 |
| 5 | 20027 | 68803 | 6609.72 | 39.740 | 28.2277 | 208.270 |
| 5 | 20028 | 68776 | 6606.32 | 39.676 | 28.2438 | 208.335 |
| 5 | 20029 | 68749 | 6602.94 | 39.626 | 28.2598 | 208.399 |
| 5 | 20030 | 68722 | 6599.57 | 39.607 | 28.2758 | 208.464 |
| 5 | 20031 | 68695 | 6596.18 | 39.634 | 28.2918 | 208.528 |
| 5 | 20032 | 68668 | 6592.79 | 39.712 | 28.3078 | 208.593 |
| 5 | 20033 | 68640 | 6589.38 | 39.816 | 28.3238 | 208.658 |
| 5 | 20034 | 68613 | 6585.93 | 39.898 | 28.3398 | 208.722 |
| 5 | 20035 | 68586 | 6582.43 | 39.956 | 28.3557 | 208.787 |
| 5 | 20036 | 68558 | 6578.89 | 39.994 | 28.3717 | 208.851 |
| 5 | 20037 | 68531 | 6575.33 | 40.025 | 28.3876 | 208.916 |
| 5 | 20038 | 68504 | 6571.73 | 40.033 | 28.4035 | 208.980 |
| 5 | 20039 | 68477 | 6568.13 | 40.006 | 28.4194 | 209.044 |
| 5 | 20040 | 68449 | 6564.54 | 39.979 | 28.4353 | 209.109 |
| 5 | 20041 | 68422 | 6560.92 | 40.273 | 28.4511 | 209.173 |
| 5 | 20042 | 68395 | 6557.17 | 40.685 | 28.4669 | 209.238 |
| 5 | 20043 | 68367 | 6553.37 | 40.440 | 28.4828 | 209.302 |
| 5 | 20044 | 68340 | 6549.69 | 40.160 | 28.4986 | 209.366 |
| 5 | 20045 | 68313 | 6545.95 | 40.348 | 28.5144 | 209.430 |
| 5 | 20046 | 68286 | 6542.29 | 40.069 | 28.5302 | 209.495 |
| 5 | 20047 | 68259 | 6538.73 | 39.238 | 28.5459 | 209.559 |
| 5 | 20048 | 68231 | 6535.26 | 38.971 | 28.5617 | 209.623 |
| 5 | 20049 | 68204 | 6531.77 | 39.048 | 28.5774 | 209.687 |
| 5 | 20050 | 68176 | 6528.26 | 39.197 | 28.5931 | 209.752 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19951 | 70473 | 6856.44 | 39.483 | 26.9589 | 203.304 |
| 5 | 19952 | 70450 | 6853.36 | 39.357 | 26.9763 | 203.370 |
| 5 | 19953 | 70427 | 6850.29 | 39.247 | 26.9936 | 203.436 |
| 5 | 19954 | 70404 | 6847.21 | 39.158 | 27.0109 | 203.502 |
| 5 | 19955 | 70381 | 6844.12 | 39.108 | 27.0282 | 203.568 |
| 5 | 19956 | 70359 | 6841.02 | 39.095 | 27.0455 | 203.634 |
| 5 | 19957 | 70336 | 6837.92 | 39.100 | 27.0627 | 203.700 |
| 5 | 19958 | 70314 | 6834.80 | 39.133 | 27.0800 | 203.765 |
| 5 | 19959 | 70292 | 6831.66 | 39.165 | 27.0972 | 203.831 |
| 5 | 19960 | 70270 | 6828.53 | 39.188 | 27.1144 | 203.897 |
| 5 | 19961 | 70248 | 6825.41 | 39.176 | 27.1316 | 203.963 |
| 5 | 19962 | 70227 | 6822.30 | 39.120 | 27.1487 | 204.029 |
| 5 | 19963 | 70206 | 6819.18 | 39.056 | 27.1659 | 204.094 |
| 5 | 19964 | 70184 | 6816.06 | 39.019 | 27.1830 | 204.160 |
| 5 | 19965 | 70164 | 6812.93 | 39.009 | 27.2001 | 204.226 |
| 5 | 19966 | 70143 | 6809.81 | 39.011 | 27.2172 | 204.292 |
| 5 | 19967 | 70122 | 6806.69 | 39.016 | 27.2343 | 204.357 |
| 5 | 19968 | 70102 | 6803.56 | 39.017 | 27.2514 | 204.423 |
| 5 | 19969 | 70082 | 6800.45 | 39.015 | 27.2684 | 204.489 |
| 5 | 19970 | 70062 | 6797.33 | 39.011 | 27.2854 | 204.554 |
| 5 | 19971 | 70042 | 6794.19 | 39.002 | 27.3024 | 204.620 |
| 5 | 19972 | 70022 | 6791.05 | 38.993 | 27.3194 | 204.686 |
| 5 | 19973 | 70002 | 6787.91 | 38.984 | 27.3364 | 204.751 |
| 5 | 19974 | 69983 | 6784.74 | 38.978 | 27.3533 | 204.817 |
| 5 | 19975 | 69963 | 6781.58 | 38.980 | 27.3703 | 204.882 |
| 5 | 19976 | 69944 | 6778.43 | 38.991 | 27.3872 | 204.948 |
| 5 | 19977 | 69925 | 6775.27 | 39.008 | 27.4041 | 205.013 |
| 5 | 19978 | 69906 | 6772.10 | 39.022 | 27.4209 | 205.079 |
| 5 | 19979 | 69887 | 6768.94 | 39.035 | 27.4378 | 205.145 |
| 5 | 19980 | 69867 | 6765.78 | 39.032 | 27.4547 | 205.210 |
| 5 | 19981 | 69848 | 6762.63 | 39.011 | 27.4715 | 205.276 |
| 5 | 19982 | 69829 | 6759.51 | 38.994 | 27.4883 | 205.341 |
| 5 | 19983 | 69810 | 6756.38 | 38.982 | 27.5051 | 205.406 |
| 5 | 19984 | 69791 | 6753.24 | 38.970 | 27.5219 | 205.472 |
| 5 | 19985 | 69772 | 6750.11 | 38.968 | 27.5386 | 205.537 |
| 5 | 19986 | 69753 | 6746.98 | 38.992 | 27.5554 | 205.603 |
| 5 | 19987 | 69733 | 6743.84 | 39.038 | 27.5721 | 205.668 |
| 5 | 19988 | 69714 | 6740.68 | 39.115 | 27.5888 | 205.734 |
| 5 | 19989 | 69694 | 6737.51 | 39.197 | 27.6055 | 205.799 |
| 5 | 19990 | 69675 | 6734.34 | 39.284 | 27.6222 | 205.864 |
| 5 | 19991 | 69655 | 6731.12 | 39.358 | 27.6389 | 205.930 |
| 5 | 19992 | 69635 | 6727.88 | 39.419 | 27.6555 | 205.995 |
| 5 | 19993 | 69615 | 6724.64 | 39.470 | 27.6721 | 206.060 |
| 5 | 19994 | 69595 | 6721.40 | 39.484 | 27.6887 | 206.125 |
| 5 | 19995 | 69575 | 6718.17 | 39.473 | 27.7053 | 206.191 |
| 5 | 19996 | 69554 | 6714.95 | 39.448 | 27.7219 | 206.256 |
| 5 | 19997 | 69533 | 6711.72 | 39.446 | 27.7385 | 206.321 |
| 5 | 19998 | 69512 | 6708.50 | 39.470 | 27.7550 | 206.386 |
| 5 | 19999 | 69491 | 6705.29 | 39.530 | 27.7715 | 206.452 |
| 5 | 20000 | 69470 | 6702.09 | 39.599 | 27.7881 | 206.517 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19901 | 71650 | 7002.73 | 39.908 | 26.0682 | 199.992 |
| 5 | 19902 | 71626 | 7000.06 | 39.924 | 26.0864 | 200.058 |
| 5 | 19903 | 71603 | 6997.40 | 39.909 | 26.1047 | 200.125 |
| 5 | 19904 | 71579 | 6994.74 | 39.891 | 26.1230 | 200.191 |
| 5 | 19905 | 71556 | 6992.08 | 39.868 | 26.1412 | 200.258 |
| 5 | 19906 | 71532 | 6989.44 | 39.848 | 26.1594 | 200.324 |
| 5 | 19907 | 71508 | 6986.76 | 39.832 | 26.1776 | 200.391 |
| 5 | 19908 | 71484 | 6984.04 | 39.812 | 26.1957 | 200.457 |
| 5 | 19909 | 71461 | 6981.29 | 39.805 | 26.2139 | 200.524 |
| 5 | 19910 | 71437 | 6978.50 | 39.798 | 26.2320 | 200.590 |
| 5 | 19911 | 71413 | 6975.70 | 39.805 | 26.2501 | 200.657 |
| 5 | 19912 | 71389 | 6972.87 | 39.827 | 26.2682 | 200.723 |
| 5 | 19913 | 71365 | 6970.01 | 39.852 | 26.2863 | 200.789 |
| 5 | 19914 | 71342 | 6967.15 | 39.886 | 26.3043 | 200.856 |
| 5 | 19915 | 71318 | 6964.26 | 39.902 | 26.3223 | 200.922 |
| 5 | 19916 | 71294 | 6961.36 | 39.912 | 26.3404 | 200.988 |
| 5 | 19917 | 71270 | 6958.45 | 39.918 | 26.3583 | 201.055 |
| 5 | 19918 | 71246 | 6955.51 | 39.904 | 26.3763 | 201.121 |
| 5 | 19919 | 71222 | 6952.60 | 39.882 | 26.3943 | 201.188 |
| 5 | 19920 | 71199 | 6949.73 | 39.858 | 26.4122 | 201.254 |
| 5 | 19921 | 71175 | 6946.87 | 39.835 | 26.4301 | 201.320 |
| 5 | 19922 | 71151 | 6944.00 | 39.817 | 26.4480 | 201.387 |
| 5 | 19923 | 71127 | 6941.15 | 39.802 | 26.4659 | 201.453 |
| 5 | 19924 | 71104 | 6938.29 | 39.782 | 26.4838 | 201.519 |
| 5 | 19925 | 71080 | 6935.44 | 39.761 | 26.5016 | 201.585 |
| 5 | 19926 | 71056 | 6932.57 | 39.768 | 26.5194 | 201.652 |
| 5 | 19927 | 71032 | 6929.70 | 39.786 | 26.5372 | 201.718 |
| 5 | 19928 | 71009 | 6926.82 | 39.826 | 26.5550 | 201.784 |
| 5 | 19929 | 70985 | 6923.89 | 39.885 | 26.5728 | 201.850 |
| 5 | 19930 | 70961 | 6920.92 | 39.949 | 26.5905 | 201.917 |
| 5 | 19931 | 70938 | 6917.91 | 40.021 | 26.6082 | 201.983 |
| 5 | 19932 | 70914 | 6914.91 | 40.078 | 26.6260 | 202.049 |
| 5 | 19933 | 70891 | 6911.92 | 40.099 | 26.6436 | 202.115 |
| 5 | 19934 | 70867 | 6908.91 | 40.080 | 26.6613 | 202.181 |
| 5 | 19935 | 70844 | 6905.88 | 40.043 | 26.6790 | 202.247 |
| 5 | 19936 | 70821 | 6902.84 | 40.008 | 26.6966 | 202.314 |
| 5 | 19937 | 70797 | 6899.81 | 39.973 | 26.7142 | 202.380 |
| 5 | 19938 | 70774 | 6896.80 | 39.943 | 26.7318 | 202.446 |
| 5 | 19939 | 70751 | 6893.78 | 39.908 | 26.7494 | 202.512 |
| 5 | 19940 | 70728 | 6890.75 | 39.901 | 26.7669 | 202.578 |
| 5 | 19941 | 70705 | 6887.73 | 39.888 | 26.7845 | 202.644 |
| 5 | 19942 | 70681 | 6884.75 | 39.887 | 26.8020 | 202.710 |
| 5 | 19943 | 70658 | 6881.75 | 39.885 | 26.8195 | 202.776 |
| 5 | 19944 | 70635 | 6878.67 | 39.897 | 26.8370 | 202.842 |
| 5 | 19945 | 70611 | 6875.51 | 39.911 | 26.8545 | 202.908 |
| 5 | 19946 | 70588 | 6872.31 | 39.935 | 26.8719 | 202.974 |
| 5 | 19947 | 70565 | 6869.12 | 39.956 | 26.8894 | 203.040 |
| 5 | 19948 | 70542 | 6865.92 | 39.898 | 26.9068 | 203.106 |
| 5 | 19949 | 70519 | 6862.74 | 39.778 | 26.9242 | 203.172 |
| 5 | 19950 | 70496 | 6859.57 | 39.633 | 26.9416 | 203.238 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19851 | 72844 | 7128.29 | 39.796 | 25.1281 | 196.657 |
| 5 | 19852 | 72822 | 7125.92 | 39.803 | 25.1474 | 196.724 |
| 5 | 19853 | 72800 | 7123.54 | 39.816 | 25.1667 | 196.791 |
| 5 | 19854 | 72777 | 7121.17 | 39.843 | 25.1859 | 196.858 |
| 5 | 19855 | 72754 | 7118.80 | 39.867 | 25.2052 | 196.925 |
| 5 | 19856 | 72731 | 7116.43 | 39.889 | 25.2244 | 196.991 |
| 5 | 19857 | 72708 | 7114.06 | 39.907 | 25.2436 | 197.058 |
| 5 | 19858 | 72685 | 7111.67 | 39.921 | 25.2628 | 197.125 |
| 5 | 19859 | 72662 | 7109.26 | 39.925 | 25.2819 | 197.192 |
| 5 | 19860 | 72638 | 7106.84 | 39.926 | 25.3011 | 197.259 |
| 5 | 19861 | 72615 | 7104.40 | 39.920 | 25.3202 | 197.325 |
| 5 | 19862 | 72591 | 7101.95 | 39.902 | 25.3393 | 197.392 |
| 5 | 19863 | 72568 | 7099.48 | 39.886 | 25.3583 | 197.459 |
| 5 | 19864 | 72544 | 7097.01 | 39.869 | 25.3774 | 197.526 |
| 5 | 19865 | 72520 | 7094.55 | 39.852 | 25.3964 | 197.593 |
| 5 | 19866 | 72496 | 7092.08 | 39.831 | 25.4154 | 197.659 |
| 5 | 19867 | 72472 | 7089.61 | 39.818 | 25.4344 | 197.726 |
| 5 | 19868 | 72448 | 7087.13 | 39.797 | 25.4534 | 197.793 |
| 5 | 19869 | 72424 | 7084.66 | 39.789 | 25.4724 | 197.860 |
| 5 | 19870 | 72400 | 7082.23 | 39.782 | 25.4913 | 197.926 |
| 5 | 19871 | 72375 | 7079.81 | 39.771 | 25.5102 | 197.993 |
| 5 | 19872 | 72351 | 7077.38 | 39.757 | 25.5291 | 198.060 |
| 5 | 19873 | 72327 | 7074.94 | 39.755 | 25.5480 | 198.126 |
| 5 | 19874 | 72302 | 7072.49 | 39.747 | 25.5668 | 198.193 |
| 5 | 19875 | 72278 | 7070.03 | 39.762 | 25.5857 | 198.260 |
| 5 | 19876 | 72253 | 7067.54 | 39.785 | 25.6045 | 198.327 |
| 5 | 19877 | 72229 | 7065.03 | 39.828 | 25.6233 | 198.393 |
| 5 | 19878 | 72205 | 7062.50 | 39.858 | 25.6420 | 198.460 |
| 5 | 19879 | 72180 | 7060.00 | 39.882 | 25.6608 | 198.527 |
| 5 | 19880 | 72156 | 7057.50 | 39.908 | 25.6795 | 198.593 |
| 5 | 19881 | 72131 | 7054.98 | 39.930 | 25.6982 | 198.660 |
| 5 | 19882 | 72107 | 7052.48 | 39.936 | 25.7169 | 198.727 |
| 5 | 19883 | 72082 | 7049.97 | 39.929 | 25.7356 | 198.793 |
| 5 | 19884 | 72058 | 7047.45 | 39.902 | 25.7542 | 198.860 |
| 5 | 19885 | 72034 | 7044.93 | 39.882 | 25.7729 | 198.927 |
| 5 | 19886 | 72010 | 7042.40 | 39.860 | 25.7915 | 198.993 |
| 5 | 19887 | 71985 | 7039.85 | 39.847 | 25.8101 | 199.060 |
| 5 | 19888 | 71961 | 7037.27 | 39.835 | 25.8286 | 199.126 |
| 5 | 19889 | 71937 | 7034.65 | 39.827 | 25.8472 | 199.193 |
| 5 | 19890 | 71913 | 7032.02 | 39.824 | 25.8657 | 199.260 |
| 5 | 19891 | 71889 | 7029.39 | 39.822 | 25.8842 | 199.326 |
| 5 | 19892 | 71865 | 7026.77 | 39.824 | 25.9027 | 199.393 |
| 5 | 19893 | 71841 | 7024.15 | 39.821 | 25.9212 | 199.459 |
| 5 | 19894 | 71817 | 7021.51 | 39.820 | 25.9396 | 199.526 |
| 5 | 19895 | 71793 | 7018.86 | 39.819 | 25.9580 | 199.593 |
| 5 | 19896 | 71769 | 7016.20 | 39.821 | 25.9764 | 199.659 |
| 5 | 19897 | 71745 | 7013.53 | 39.830 | 25.9948 | 199.726 |
| 5 | 19898 | 71721 | 7010.84 | 39.843 | 26.0132 | 199.792 |
| 5 | 19899 | 71697 | 7008.13 | 39.866 | 26.0315 | 199.859 |
| 5 | 19900 | 71674 | 7005.42 | 39.890 | 26.0499 | 199.925 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19801 | 73973 | 7242.22 | 39.874 | 24.1369 | 193.310 |
| 5 | 19802 | 73949 | 7240.12 | 39.903 | 24.1572 | 193.377 |
| 5 | 19803 | 73926 | 7237.99 | 39.925 | 24.1775 | 193.444 |
| 5 | 19804 | 73902 | 7235.84 | 39.947 | 24.1978 | 193.511 |
| 5 | 19805 | 73879 | 7233.68 | 39.969 | 24.2181 | 193.578 |
| 5 | 19806 | 73855 | 7231.51 | 39.987 | 24.2383 | 193.645 |
| 5 | 19807 | 73831 | 7229.32 | 40.005 | 24.2585 | 193.712 |
| 5 | 19808 | 73808 | 7227.12 | 40.017 | 24.2788 | 193.779 |
| 5 | 19809 | 73785 | 7224.88 | 40.024 | 24.2989 | 193.846 |
| 5 | 19810 | 73761 | 7222.64 | 40.025 | 24.3191 | 193.913 |
| 5 | 19811 | 73738 | 7220.41 | 40.013 | 24.3393 | 193.980 |
| 5 | 19812 | 73715 | 7218.18 | 39.992 | 24.3594 | 194.047 |
| 5 | 19813 | 73691 | 7215.95 | 39.960 | 24.3795 | 194.114 |
| 5 | 19814 | 73668 | 7213.72 | 39.937 | 24.3996 | 194.181 |
| 5 | 19815 | 73645 | 7211.50 | 39.907 | 24.4196 | 194.248 |
| 5 | 19816 | 73622 | 7209.27 | 39.882 | 24.4397 | 194.315 |
| 5 | 19817 | 73599 | 7207.02 | 39.862 | 24.4597 | 194.382 |
| 5 | 19818 | 73576 | 7204.73 | 39.850 | 24.4797 | 194.449 |
| 5 | 19819 | 73553 | 7202.44 | 39.845 | 24.4997 | 194.516 |
| 5 | 19820 | 73530 | 7200.14 | 39.853 | 24.5196 | 194.583 |
| 5 | 19821 | 73507 | 7197.84 | 39.870 | 24.5396 | 194.650 |
| 5 | 19822 | 73484 | 7195.54 | 39.897 | 24.5595 | 194.717 |
| 5 | 19823 | 73461 | 7193.25 | 39.925 | 24.5794 | 194.784 |
| 5 | 19824 | 73439 | 7190.94 | 39.951 | 24.5993 | 194.851 |
| 5 | 19825 | 73416 | 7188.63 | 39.972 | 24.6191 | 194.918 |
| 5 | 19826 | 73394 | 7186.32 | 39.994 | 24.6390 | 194.985 |
| 5 | 19827 | 73371 | 7184.02 | 40.002 | 24.6588 | 195.052 |
| 5 | 19828 | 73349 | 7181.73 | 40.003 | 24.6786 | 195.119 |
| 5 | 19829 | 73327 | 7179.46 | 39.993 | 24.6983 | 195.185 |
| 5 | 19830 | 73305 | 7177.20 | 39.966 | 24.7181 | 195.252 |
| 5 | 19831 | 73283 | 7174.94 | 39.940 | 24.7378 | 195.319 |
| 5 | 19832 | 73261 | 7172.66 | 39.915 | 24.7575 | 195.386 |
| 5 | 19833 | 73239 | 7170.36 | 39.894 | 24.7772 | 195.453 |
| 5 | 19834 | 73217 | 7168.03 | 39.877 | 24.7969 | 195.520 |
| 5 | 19835 | 73195 | 7165.67 | 39.860 | 24.8165 | 195.587 |
| 5 | 19836 | 73173 | 7163.29 | 39.859 | 24.8362 | 195.654 |
| 5 | 19837 | 73151 | 7160.92 | 39.874 | 24.8558 | 195.721 |
| 5 | 19838 | 73130 | 7158.58 | 39.897 | 24.8754 | 195.788 |
| 5 | 19839 | 73108 | 7156.27 | 39.920 | 24.8949 | 195.855 |
| 5 | 19840 | 73086 | 7153.95 | 39.938 | 24.9145 | 195.922 |
| 5 | 19841 | 73064 | 7151.63 | 39.946 | 24.9340 | 195.989 |
| 5 | 19842 | 73043 | 7149.30 | 39.942 | 24.9535 | 196.055 |
| 5 | 19843 | 73021 | 7146.96 | 39.934 | 24.9730 | 196.122 |
| 5 | 19844 | 72999 | 7144.63 | 39.912 | 24.9924 | 196.189 |
| 5 | 19845 | 72977 | 7142.31 | 39.886 | 25.0119 | 196.256 |
| 5 | 19846 | 72955 | 7139.99 | 39.863 | 25.0313 | 196.323 |
| 5 | 19847 | 72933 | 7137.65 | 39.841 | 25.0507 | 196.390 |
| 5 | 19848 | 72911 | 7135.31 | 39.819 | 25.0701 | 196.457 |
| 5 | 19849 | 72889 | 7132.99 | 39.809 | 25.0894 | 196.524 |
| 5 | 19850 | 72867 | 7130.64 | 39.801 | 25.1088 | 196.590 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19751 | 75212 | 7335.10 | 39.923 | 23.0928 | 189.956 |
| 5 | 19752 | 75185 | 7333.40 | 39.863 | 23.1143 | 190.023 |
| 5 | 19753 | 75157 | 7331.70 | 39.815 | 23.1357 | 190.091 |
| 5 | 19754 | 75130 | 7329.98 | 39.792 | 23.1570 | 190.158 |
| 5 | 19755 | 75103 | 7328.25 | 39.795 | 23.1784 | 190.225 |
| 5 | 19756 | 75077 | 7326.51 | 39.819 | 23.1997 | 190.292 |
| 5 | 19757 | 75050 | 7324.77 | 39.870 | 23.2210 | 190.359 |
| 5 | 19758 | 75024 | 7323.02 | 39.930 | 23.2423 | 190.426 |
| 5 | 19759 | 74998 | 7321.27 | 39.995 | 23.2635 | 190.493 |
| 5 | 19760 | 74971 | 7319.52 | 40.054 | 23.2848 | 190.560 |
| 5 | 19761 | 74946 | 7317.75 | 40.106 | 23.3060 | 190.627 |
| 5 | 19762 | 74920 | 7315.97 | 40.141 | 23.3272 | 190.694 |
| 5 | 19763 | 74894 | 7314.19 | 40.154 | 23.3484 | 190.761 |
| 5 | 19764 | 74868 | 7312.40 | 40.149 | 23.3695 | 190.828 |
| 5 | 19765 | 74843 | 7310.61 | 40.127 | 23.3906 | 190.895 |
| 5 | 19766 | 74818 | 7308.82 | 40.097 | 23.4117 | 190.962 |
| 5 | 19767 | 74792 | 7307.01 | 40.062 | 23.4328 | 191.029 |
| 5 | 19768 | 74767 | 7305.21 | 40.029 | 23.4539 | 191.096 |
| 5 | 19769 | 74742 | 7303.40 | 39.998 | 23.4749 | 191.163 |
| 5 | 19770 | 74717 | 7301.60 | 39.976 | 23.4960 | 191.231 |
| 5 | 19771 | 74692 | 7299.79 | 39.956 | 23.5170 | 191.298 |
| 5 | 19772 | 74668 | 7297.99 | 39.925 | 23.5379 | 191.365 |
| 5 | 19773 | 74643 | 7296.19 | 39.914 | 23.5589 | 191.432 |
| 5 | 19774 | 74618 | 7294.38 | 39.902 | 23.5798 | 191.499 |
| 5 | 19775 | 74594 | 7292.57 | 39.896 | 23.6007 | 191.566 |
| 5 | 19776 | 74569 | 7290.75 | 39.886 | 23.6216 | 191.633 |
| 5 | 19777 | 74545 | 7288.91 | 39.891 | 23.6425 | 191.700 |
| 5 | 19778 | 74521 | 7287.07 | 39.903 | 23.6633 | 191.767 |
| 5 | 19779 | 74496 | 7285.23 | 39.925 | 23.6841 | 191.834 |
| 5 | 19780 | 74472 | 7283.38 | 39.954 | 23.7049 | 191.901 |
| 5 | 19781 | 74448 | 7281.53 | 39.975 | 23.7257 | 191.968 |
| 5 | 19782 | 74424 | 7279.66 | 40.000 | 23.7465 | 192.035 |
| 5 | 19783 | 74400 | 7277.78 | 40.027 | 23.7672 | 192.102 |
| 5 | 19784 | 74376 | 7275.88 | 40.045 | 23.7879 | 192.170 |
| 5 | 19785 | 74352 | 7273.96 | 40.057 | 23.8086 | 192.237 |
| 5 | 19786 | 74328 | 7272.00 | 40.067 | 23.8293 | 192.304 |
| 5 | 19787 | 74304 | 7270.00 | 40.073 | 23.8500 | 192.371 |
| 5 | 19788 | 74280 | 7267.99 | 40.072 | 23.8706 | 192.438 |
| 5 | 19789 | 74256 | 7265.98 | 40.055 | 23.8912 | 192.505 |
| 5 | 19790 | 74233 | 7263.99 | 40.029 | 23.9118 | 192.572 |
| 5 | 19791 | 74209 | 7262.03 | 39.994 | 23.9324 | 192.639 |
| 5 | 19792 | 74185 | 7260.07 | 39.966 | 23.9529 | 192.706 |
| 5 | 19793 | 74161 | 7258.09 | 39.943 | 23.9734 | 192.773 |
| 5 | 19794 | 74138 | 7256.13 | 39.917 | 23.9939 | 192.840 |
| 5 | 19795 | 74114 | 7254.18 | 39.890 | 24.0144 | 192.907 |
| 5 | 19796 | 74090 | 7252.22 | 39.868 | 24.0349 | 192.974 |
| 5 | 19797 | 74067 | 7250.25 | 39.849 | 24.0553 | 193.041 |
| 5 | 19798 | 74043 | 7248.26 | 39.836 | 24.0757 | 193.108 |
| 5 | 19799 | 74020 | 7246.26 | 39.839 | 24.0961 | 193.175 |
| 5 | 19800 | 73996 | 7244.25 | 39.854 | 24.1165 | 193.242 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19701 | 76969 | 7406.62 | 40.626 | 21.9933 | 186.608 |
| 5 | 19702 | 76921 | 7405.43 | 40.577 | 22.0159 | 186.675 |
| 5 | 19703 | 76874 | 7404.24 | 40.498 | 22.0384 | 186.742 |
| 5 | 19704 | 76827 | 7403.03 | 40.409 | 22.0609 | 186.809 |
| 5 | 19705 | 76782 | 7401.81 | 40.258 | 22.0834 | 186.876 |
| 5 | 19706 | 76737 | 7400.61 | 40.013 | 22.1059 | 186.943 |
| 5 | 19707 | 76693 | 7399.43 | 39.745 | 22.1283 | 187.009 |
| 5 | 19708 | 76650 | 7398.24 | 39.565 | 22.1508 | 187.076 |
| 5 | 19709 | 76608 | 7397.06 | 39.387 | 22.1732 | 187.143 |
| 5 | 19710 | 76566 | 7395.89 | 39.231 | 22.1955 | 187.210 |
| 5 | 19711 | 76525 | 7394.72 | 39.154 | 22.2179 | 187.277 |
| 5 | 19712 | 76485 | 7393.56 | 39.131 | 22.2402 | 187.344 |
| 5 | 19713 | 76445 | 7392.39 | 39.158 | 22.2625 | 187.411 |
| 5 | 19714 | 76406 | 7391.20 | 39.222 | 22.2848 | 187.478 |
| 5 | 19715 | 76367 | 7390.01 | 39.325 | 22.3070 | 187.545 |
| 5 | 19716 | 76329 | 7388.81 | 39.471 | 22.3293 | 187.612 |
| 5 | 19717 | 76291 | 7387.58 | 39.674 | 22.3515 | 187.678 |
| 5 | 19718 | 76254 | 7386.33 | 39.917 | 22.3737 | 187.745 |
| 5 | 19719 | 76217 | 7385.06 | 40.174 | 22.3958 | 187.812 |
| 5 | 19720 | 76181 | 7383.75 | 40.412 | 22.4179 | 187.879 |
| 5 | 19721 | 76145 | 7382.41 | 40.608 | 22.4401 | 187.946 |
| 5 | 19722 | 76109 | 7381.05 | 40.751 | 22.4621 | 188.013 |
| 5 | 19723 | 76074 | 7379.67 | 40.825 | 22.4842 | 188.080 |
| 5 | 19724 | 76039 | 7378.27 | 40.836 | 22.5063 | 188.147 |
| 5 | 19725 | 76005 | 7376.86 | 40.770 | 22.5283 | 188.214 |
| 5 | 19726 | 75971 | 7375.40 | 40.660 | 22.5503 | 188.281 |
| 5 | 19727 | 75937 | 7373.86 | 40.508 | 22.5722 | 188.348 |
| 5 | 19728 | 75904 | 7372.30 | 40.337 | 22.5942 | 188.415 |
| 5 | 19729 | 75871 | 7370.75 | 40.162 | 22.6161 | 188.482 |
| 5 | 19730 | 75838 | 7369.23 | 39.995 | 22.6380 | 188.549 |
| 5 | 19731 | 75806 | 7367.71 | 39.855 | 22.6599 | 188.616 |
| 5 | 19732 | 75773 | 7366.19 | 39.755 | 22.6818 | 188.683 |
| 5 | 19733 | 75742 | 7364.66 | 39.686 | 22.7036 | 188.750 |
| 5 | 19734 | 75710 | 7363.12 | 39.666 | 22.7254 | 188.817 |
| 5 | 19735 | 75679 | 7361.58 | 39.689 | 22.7472 | 188.884 |
| 5 | 19736 | 75648 | 7360.04 | 39.743 | 22.7690 | 188.951 |
| 5 | 19737 | 75617 | 7358.49 | 39.824 | 22.7907 | 189.018 |
| 5 | 19738 | 75587 | 7356.92 | 39.920 | 22.8125 | 189.085 |
| 5 | 19739 | 75557 | 7355.34 | 40.023 | 22.8342 | 189.152 |
| 5 | 19740 | 75527 | 7353.74 | 40.113 | 22.8558 | 189.219 |
| 5 | 19741 | 75497 | 7352.11 | 40.186 | 22.8775 | 189.286 |
| 5 | 19742 | 75467 | 7350.46 | 40.240 | 22.8991 | 189.353 |
| 5 | 19743 | 75438 | 7348.77 | 40.270 | 22.9207 | 189.420 |
| 5 | 19744 | 75409 | 7347.08 | 40.282 | 22.9423 | 189.487 |
| 5 | 19745 | 75380 | 7345.37 | 40.272 | 22.9639 | 189.554 |
| 5 | 19746 | 75352 | 7343.65 | 40.238 | 22.9855 | 189.621 |
| 5 | 19747 | 75323 | 7341.93 | 40.193 | 23.0070 | 189.688 |
| 5 | 19748 | 75295 | 7340.21 | 40.133 | 23.0285 | 189.755 |
| 5 | 19749 | 75267 | 7338.50 | 40.066 | 23.0500 | 189.822 |
| 5 | 19750 | 75240 | 7336.79 | 39.992 | 23.0714 | 189.889 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19651 | 80905 | 7447.92 | 41.256 | 20.8249 | 183.282 |
| 5 | 19652 | 80800 | 7447.16 | 41.409 | 20.8491 | 183.348 |
| 5 | 19653 | 80696 | 7446.38 | 41.503 | 20.8732 | 183.415 |
| 5 | 19654 | 80593 | 7445.59 | 41.522 | 20.8973 | 183.481 |
| 5 | 19655 | 80490 | 7444.79 | 41.513 | 20.9213 | 183.547 |
| 5 | 19656 | 80389 | 7443.98 | 41.412 | 20.9454 | 183.613 |
| 5 | 19657 | 80288 | 7443.16 | 41.282 | 20.9693 | 183.679 |
| 5 | 19658 | 80189 | 7442.35 | 41.073 | 20.9933 | 183.746 |
| 5 | 19659 | 80090 | 7441.54 | 40.805 | 21.0172 | 183.812 |
| 5 | 19660 | 79992 | 7440.72 | 40.496 | 21.0411 | 183.878 |
| 5 | 19661 | 79896 | 7440.20 | 40.161 | 21.0650 | 183.945 |
| 5 | 19662 | 79800 | 7439.72 | 39.838 | 21.0888 | 184.011 |
| 5 | 19663 | 79705 | 7439.25 | 39.552 | 21.1126 | 184.077 |
| 5 | 19664 | 79611 | 7438.78 | 39.345 | 21.1364 | 184.144 |
| 5 | 19665 | 79519 | 7438.30 | 39.204 | 21.1601 | 184.210 |
| 5 | 19666 | 79427 | 7437.82 | 39.103 | 21.1838 | 184.276 |
| 5 | 19667 | 79336 | 7437.30 | 39.036 | 21.2075 | 184.343 |
| 5 | 19668 | 79247 | 7436.76 | 39.017 | 21.2312 | 184.409 |
| 5 | 19669 | 79158 | 7436.20 | 39.050 | 21.2548 | 184.476 |
| 5 | 19670 | 79071 | 7435.63 | 39.144 | 21.2784 | 184.542 |
| 5 | 19671 | 78984 | 7435.03 | 39.292 | 21.3019 | 184.608 |
| 5 | 19672 | 78899 | 7434.39 | 39.487 | 21.3254 | 184.675 |
| 5 | 19673 | 78815 | 7433.71 | 39.717 | 21.3489 | 184.741 |
| 5 | 19674 | 78732 | 7433.00 | 39.974 | 21.3724 | 184.808 |
| 5 | 19675 | 78650 | 7432.25 | 40.269 | 21.3958 | 184.874 |
| 5 | 19676 | 78569 | 7431.46 | 40.573 | 21.4192 | 184.941 |
| 5 | 19677 | 78490 | 7430.62 | 40.820 | 21.4425 | 185.008 |
| 5 | 19678 | 78412 | 7429.75 | 41.029 | 21.4658 | 185.074 |
| 5 | 19679 | 78335 | 7428.85 | 41.187 | 21.4891 | 185.141 |
| 5 | 19680 | 78259 | 7427.92 | 41.286 | 21.5124 | 185.207 |
| 5 | 19681 | 78185 | 7426.97 | 41.313 | 21.5356 | 185.274 |
| 5 | 19682 | 78112 | 7425.99 | 41.253 | 21.5588 | 185.340 |
| 5 | 19683 | 78040 | 7425.00 | 41.099 | 21.5820 | 185.407 |
| 5 | 19684 | 77970 | 7424.02 | 40.864 | 21.6051 | 185.474 |
| 5 | 19685 | 77901 | 7423.08 | 40.591 | 21.6282 | 185.540 |
| 5 | 19686 | 77833 | 7422.16 | 40.302 | 21.6512 | 185.607 |
| 5 | 19687 | 77767 | 7421.23 | 40.013 | 21.6742 | 185.674 |
| 5 | 19688 | 77702 | 7420.31 | 39.805 | 21.6972 | 185.740 |
| 5 | 19689 | 77638 | 7419.37 | 39.679 | 21.7202 | 185.807 |
| 5 | 19690 | 77575 | 7418.42 | 39.665 | 21.7431 | 185.874 |
| 5 | 19691 | 77514 | 7417.46 | 39.703 | 21.7660 | 185.941 |
| 5 | 19692 | 77454 | 7416.48 | 39.767 | 21.7889 | 186.007 |
| 5 | 19693 | 77395 | 7415.49 | 39.870 | 21.8117 | 186.074 |
| 5 | 19694 | 77338 | 7414.46 | 39.995 | 21.8345 | 186.141 |
| 5 | 19695 | 77282 | 7413.41 | 40.141 | 21.8573 | 186.208 |
| 5 | 19696 | 77227 | 7412.34 | 40.292 | 21.8800 | 186.274 |
| 5 | 19697 | 77173 | 7411.24 | 40.424 | 21.9027 | 186.341 |
| 5 | 19698 | 77121 | 7410.11 | 40.535 | 21.9254 | 186.408 |
| 5 | 19699 | 77069 | 7408.96 | 40.608 | 21.9481 | 186.475 |
| 5 | 19700 | 77019 | 7407.79 | 40.642 | 21.9707 | 186.542 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19601 | 87071 | 7470.35 | 39.046 | 19.5803 | 180.000 |
| 5 | 19602 | 86933 | 7470.25 | 38.997 | 19.6059 | 180.065 |
| 5 | 19603 | 86796 | 7470.13 | 38.991 | 19.6314 | 180.130 |
| 5 | 19604 | 86660 | 7470.00 | 39.022 | 19.6569 | 180.195 |
| 5 | 19605 | 86524 | 7469.85 | 39.022 | 19.6824 | 180.261 |
| 5 | 19606 | 86388 | 7469.71 | 39.051 | 19.7079 | 180.326 |
| 5 | 19607 | 86253 | 7469.55 | 39.111 | 19.7334 | 180.391 |
| 5 | 19608 | 86118 | 7469.38 | 39.183 | 19.7588 | 180.456 |
| 5 | 19609 | 85984 | 7469.19 | 39.289 | 19.7842 | 180.522 |
| 5 | 19610 | 85850 | 7468.99 | 39.422 | 19.8095 | 180.587 |
| 5 | 19611 | 85717 | 7468.78 | 39.579 | 19.8349 | 180.652 |
| 5 | 19612 | 85584 | 7468.56 | 39.789 | 19.8602 | 180.718 |
| 5 | 19613 | 85452 | 7468.32 | 39.985 | 19.8855 | 180.783 |
| 5 | 19614 | 85321 | 7468.08 | 40.224 | 19.9107 | 180.848 |
| 5 | 19615 | 85190 | 7467.82 | 40.477 | 19.9359 | 180.914 |
| 5 | 19616 | 85059 | 7467.54 | 40.740 | 19.9611 | 180.979 |
| 5 | 19617 | 84929 | 7467.23 | 40.992 | 19.9863 | 181.045 |
| 5 | 19618 | 84800 | 7466.93 | 41.169 | 20.0114 | 181.110 |
| 5 | 19619 | 84671 | 7466.61 | 41.324 | 20.0366 | 181.176 |
| 5 | 19620 | 84543 | 7466.26 | 41.447 | 20.0616 | 181.241 |
| 5 | 19621 | 84415 | 7465.92 | 41.514 | 20.0867 | 181.307 |
| 5 | 19622 | 84288 | 7465.56 | 41.553 | 20.1117 | 181.372 |
| 5 | 19623 | 84162 | 7465.19 | 41.531 | 20.1367 | 181.438 |
| 5 | 19624 | 84036 | 7464.81 | 41.470 | 20.1617 | 181.504 |
| 5 | 19625 | 83911 | 7464.42 | 41.371 | 20.1866 | 181.569 |
| 5 | 19626 | 83787 | 7464.02 | 41.226 | 20.2116 | 181.635 |
| 5 | 19627 | 83663 | 7463.62 | 41.043 | 20.2364 | 181.700 |
| 5 | 19628 | 83540 | 7463.21 | 40.822 | 20.2613 | 181.766 |
| 5 | 19629 | 83417 | 7462.80 | 40.579 | 20.2861 | 181.832 |
| 5 | 19630 | 83295 | 7462.38 | 40.281 | 20.3109 | 181.898 |
| 5 | 19631 | 83174 | 7461.97 | 39.985 | 20.3357 | 181.963 |
| 5 | 19632 | 83054 | 7461.55 | 39.707 | 20.3604 | 182.029 |
| 5 | 19633 | 82934 | 7461.08 | 39.424 | 20.3852 | 182.095 |
| 5 | 19634 | 82815 | 7460.41 | 39.308 | 20.4098 | 182.161 |
| 5 | 19635 | 82697 | 7459.73 | 39.203 | 20.4345 | 182.227 |
| 5 | 19636 | 82579 | 7459.05 | 39.104 | 20.4591 | 182.292 |
| 5 | 19637 | 82462 | 7458.36 | 39.027 | 20.4837 | 182.358 |
| 5 | 19638 | 82346 | 7457.67 | 38.984 | 20.5083 | 182.424 |
| 5 | 19639 | 82230 | 7456.96 | 38.963 | 20.5328 | 182.490 |
| 5 | 19640 | 82116 | 7456.26 | 38.989 | 20.5573 | 182.556 |
| 5 | 19641 | 82002 | 7455.53 | 39.058 | 20.5818 | 182.622 |
| 5 | 19642 | 81889 | 7454.80 | 39.165 | 20.6062 | 182.688 |
| 5 | 19643 | 81776 | 7454.11 | 39.316 | 20.6307 | 182.754 |
| 5 | 19644 | 81664 | 7453.40 | 39.508 | 20.6551 | 182.820 |
| 5 | 19645 | 81554 | 7452.67 | 39.743 | 20.6794 | 182.886 |
| 5 | 19646 | 81443 | 7451.92 | 40.018 | 20.7037 | 182.952 |
| 5 | 19647 | 81334 | 7451.15 | 40.315 | 20.7280 | 183.018 |
| 5 | 19648 | 81226 | 7450.36 | 40.622 | 20.7523 | 183.084 |
| 5 | 19649 | 81118 | 7449.55 | 40.879 | 20.7765 | 183.150 |
| 5 | 19650 | 81011 | 7448.71 | 41.097 | 20.8008 | 183.216 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19551 | 94391 | 7488.68 | 39.424 | 18.2689 | 176.772 |
| 5 | 19552 | 94238 | 7488.82 | 39.438 | 18.2958 | 176.836 |
| 5 | 19553 | 94084 | 7488.96 | 39.448 | 18.3226 | 176.900 |
| 5 | 19554 | 93932 | 7489.10 | 39.457 | 18.3493 | 176.964 |
| 5 | 19555 | 93779 | 7489.23 | 39.442 | 18.3761 | 177.029 |
| 5 | 19556 | 93627 | 7489.37 | 39.450 | 18.4028 | 177.093 |
| 5 | 19557 | 93474 | 7489.50 | 39.467 | 18.4295 | 177.157 |
| 5 | 19558 | 93322 | 7489.63 | 39.446 | 18.4562 | 177.221 |
| 5 | 19559 | 93171 | 7489.75 | 39.438 | 18.4829 | 177.285 |
| 5 | 19560 | 93019 | 7489.87 | 39.435 | 18.5095 | 177.349 |
| 5 | 19561 | 92868 | 7489.60 | 39.427 | 18.5361 | 177.413 |
| 5 | 19562 | 92717 | 7489.28 | 39.417 | 18.5627 | 177.478 |
| 5 | 19563 | 92566 | 7488.96 | 39.420 | 18.5893 | 177.542 |
| 5 | 19564 | 92416 | 7488.63 | 39.493 | 18.6158 | 177.606 |
| 5 | 19565 | 92266 | 7488.31 | 39.573 | 18.6423 | 177.670 |
| 5 | 19566 | 92116 | 7487.97 | 39.664 | 18.6688 | 177.735 |
| 5 | 19567 | 91966 | 7487.71 | 39.742 | 18.6953 | 177.799 |
| 5 | 19568 | 91817 | 7486.64 | 39.836 | 18.7217 | 177.863 |
| 5 | 19569 | 91668 | 7485.54 | 39.937 | 18.7482 | 177.928 |
| 5 | 19570 | 91519 | 7484.43 | 40.018 | 18.7745 | 177.992 |
| 5 | 19571 | 91370 | 7483.32 | 40.090 | 18.8009 | 178.057 |
| 5 | 19572 | 91222 | 7482.19 | 40.196 | 18.8273 | 178.121 |
| 5 | 19573 | 91074 | 7481.04 | 40.271 | 18.8536 | 178.185 |
| 5 | 19574 | 90927 | 7479.88 | 40.368 | 18.8799 | 178.250 |
| 5 | 19575 | 90779 | 7478.70 | 40.459 | 18.9062 | 178.315 |
| 5 | 19576 | 90632 | 7477.51 | 40.554 | 18.9324 | 178.379 |
| 5 | 19577 | 90486 | 7476.30 | 40.646 | 18.9586 | 178.444 |
| 5 | 19578 | 90339 | 7475.08 | 40.739 | 18.9848 | 178.508 |
| 5 | 19579 | 90193 | 7473.85 | 40.817 | 19.0110 | 178.573 |
| 5 | 19580 | 90048 | 7472.62 | 40.926 | 19.0371 | 178.637 |
| 5 | 19581 | 89902 | 7471.92 | 41.021 | 19.0633 | 178.702 |
| 5 | 19582 | 89757 | 7471.89 | 41.103 | 19.0894 | 178.767 |
| 5 | 19583 | 89612 | 7471.86 | 41.191 | 19.1154 | 178.831 |
| 5 | 19584 | 89468 | 7471.82 | 41.301 | 19.1415 | 178.896 |
| 5 | 19585 | 89324 | 7471.77 | 41.339 | 19.1675 | 178.961 |
| 5 | 19586 | 89180 | 7471.72 | 41.328 | 19.1935 | 179.026 |
| 5 | 19587 | 89037 | 7471.67 | 41.270 | 19.2195 | 179.091 |
| 5 | 19588 | 88894 | 7471.60 | 41.226 | 19.2454 | 179.155 |
| 5 | 19589 | 88751 | 7471.53 | 41.153 | 19.2713 | 179.220 |
| 5 | 19590 | 88609 | 7471.46 | 41.055 | 19.2972 | 179.285 |
| 5 | 19591 | 88467 | 7471.37 | 40.941 | 19.3231 | 179.350 |
| 5 | 19592 | 88326 | 7471.28 | 40.794 | 19.3489 | 179.415 |
| 5 | 19593 | 88185 | 7471.20 | 40.625 | 19.3747 | 179.480 |
| 5 | 19594 | 88044 | 7471.10 | 40.448 | 19.4005 | 179.545 |
| 5 | 19595 | 87904 | 7471.01 | 40.242 | 19.4263 | 179.610 |
| 5 | 19596 | 87764 | 7470.90 | 40.041 | 19.4520 | 179.675 |
| 5 | 19597 | 87624 | 7470.79 | 39.824 | 19.4777 | 179.740 |
| 5 | 19598 | 87485 | 7470.68 | 39.608 | 19.5034 | 179.805 |
| 5 | 19599 | 87346 | 7470.57 | 39.388 | 19.5291 | 179.870 |
| 5 | 19600 | 87208 | 7470.47 | 39.216 | 19.5547 | 179.935 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19501 | 102287 | 7500.25 | 40.781 | 16.8993 | 173.603 |
| 5 | 19502 | 102126 | 7500.08 | 40.781 | 16.9272 | 173.666 |
| 5 | 19503 | 101964 | 7499.91 | 40.784 | 16.9551 | 173.729 |
| 5 | 19504 | 101802 | 7499.73 | 40.780 | 16.9830 | 173.792 |
| 5 | 19505 | 101641 | 7499.60 | 40.771 | 17.0108 | 173.854 |
| 5 | 19506 | 101480 | 7499.46 | 40.760 | 17.0386 | 173.917 |
| 5 | 19507 | 101318 | 7499.32 | 40.748 | 17.0665 | 173.980 |
| 5 | 19508 | 101157 | 7499.18 | 40.733 | 17.0943 | 174.043 |
| 5 | 19509 | 100997 | 7499.04 | 40.708 | 17.1220 | 174.106 |
| 5 | 19510 | 100836 | 7498.89 | 40.672 | 17.1498 | 174.169 |
| 5 | 19511 | 100675 | 7498.75 | 40.663 | 17.1775 | 174.232 |
| 5 | 19512 | 100515 | 7498.61 | 40.637 | 17.2052 | 174.295 |
| 5 | 19513 | 100355 | 7498.47 | 40.615 | 17.2329 | 174.358 |
| 5 | 19514 | 100195 | 7498.33 | 40.591 | 17.2606 | 174.421 |
| 5 | 19515 | 100035 | 7498.18 | 40.562 | 17.2882 | 174.485 |
| 5 | 19516 | 99875 | 7497.40 | 40.533 | 17.3159 | 174.548 |
| 5 | 19517 | 99716 | 7496.17 | 40.495 | 17.3435 | 174.611 |
| 5 | 19518 | 99556 | 7494.96 | 40.435 | 17.3710 | 174.674 |
| 5 | 19519 | 99397 | 7493.76 | 40.403 | 17.3986 | 174.737 |
| 5 | 19520 | 99238 | 7492.55 | 40.362 | 17.4262 | 174.801 |
| 5 | 19521 | 99079 | 7491.34 | 40.316 | 17.4537 | 174.864 |
| 5 | 19522 | 98920 | 7490.15 | 40.262 | 17.4812 | 174.927 |
| 5 | 19523 | 98762 | 7488.96 | 40.209 | 17.5086 | 174.990 |
| 5 | 19524 | 98603 | 7487.76 | 40.148 | 17.5361 | 175.054 |
| 5 | 19525 | 98445 | 7486.58 | 40.077 | 17.5635 | 175.117 |
| 5 | 19526 | 98287 | 7485.41 | 40.022 | 17.5909 | 175.180 |
| 5 | 19527 | 98129 | 7484.40 | 39.942 | 17.6183 | 175.244 |
| 5 | 19528 | 97971 | 7484.59 | 39.863 | 17.6457 | 175.307 |
| 5 | 19529 | 97813 | 7484.78 | 39.802 | 17.6730 | 175.371 |
| 5 | 19530 | 97656 | 7484.97 | 39.722 | 17.7004 | 175.434 |
| 5 | 19531 | 97499 | 7485.17 | 39.621 | 17.7277 | 175.498 |
| 5 | 19532 | 97342 | 7485.36 | 39.532 | 17.7549 | 175.561 |
| 5 | 19533 | 97185 | 7485.55 | 39.439 | 17.7822 | 175.625 |
| 5 | 19534 | 97028 | 7485.75 | 39.356 | 17.8094 | 175.688 |
| 5 | 19535 | 96871 | 7485.94 | 39.251 | 17.8366 | 175.752 |
| 5 | 19536 | 96715 | 7486.13 | 39.199 | 17.8638 | 175.815 |
| 5 | 19537 | 96559 | 7486.32 | 39.153 | 17.8910 | 175.879 |
| 5 | 19538 | 96402 | 7486.50 | 39.122 | 17.9181 | 175.943 |
| 5 | 19539 | 96247 | 7486.69 | 39.104 | 17.9453 | 176.006 |
| 5 | 19540 | 96091 | 7486.87 | 39.167 | 17.9724 | 176.070 |
| 5 | 19541 | 95935 | 7487.05 | 39.202 | 17.9994 | 176.134 |
| 5 | 19542 | 95780 | 7487.23 | 39.234 | 18.0265 | 176.198 |
| 5 | 19543 | 95625 | 7487.40 | 39.250 | 18.0535 | 176.261 |
| 5 | 19544 | 95470 | 7487.57 | 39.269 | 18.0805 | 176.325 |
| 5 | 19545 | 95315 | 7487.74 | 39.294 | 18.1075 | 176.389 |
| 5 | 19546 | 95161 | 7487.90 | 39.323 | 18.1345 | 176.453 |
| 5 | 19547 | 95006 | 7488.07 | 39.324 | 18.1614 | 176.517 |
| 5 | 19548 | 94852 | 7488.23 | 39.345 | 18.1883 | 176.581 |
| 5 | 19549 | 94698 | 7488.38 | 39.378 | 18.2152 | 176.645 |
| 5 | 19550 | 94544 | 7488.53 | 39.403 | 18.2421 | 176.708 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19451 | 110562 | 7501.34 | 39.250 | 15.4781 | 170.491 |
| 5 | 19452 | 110393 | 7501.48 | 39.235 | 15.5070 | 170.552 |
| 5 | 19453 | 110225 | 7501.62 | 39.269 | 15.5358 | 170.614 |
| 5 | 19454 | 110056 | 7501.75 | 39.318 | 15.5647 | 170.676 |
| 5 | 19455 | 109888 | 7501.89 | 39.352 | 15.5935 | 170.738 |
| 5 | 19456 | 109720 | 7502.03 | 39.406 | 15.6223 | 170.800 |
| 5 | 19457 | 109551 | 7502.17 | 39.457 | 15.6511 | 170.861 |
| 5 | 19458 | 109383 | 7502.32 | 39.502 | 15.6799 | 170.923 |
| 5 | 19459 | 109215 | 7502.46 | 39.539 | 15.7087 | 170.985 |
| 5 | 19460 | 109048 | 7502.56 | 39.581 | 15.7374 | 171.047 |
| 5 | 19461 | 108880 | 7502.60 | 39.638 | 15.7661 | 171.109 |
| 5 | 19462 | 108713 | 7502.62 | 39.680 | 15.7948 | 171.171 |
| 5 | 19463 | 108545 | 7502.66 | 39.711 | 15.8235 | 171.233 |
| 5 | 19464 | 108378 | 7502.70 | 39.753 | 15.8522 | 171.295 |
| 5 | 19465 | 108211 | 7502.74 | 39.802 | 15.8808 | 171.357 |
| 5 | 19466 | 108044 | 7502.78 | 39.840 | 15.9095 | 171.419 |
| 5 | 19467 | 107877 | 7502.83 | 39.878 | 15.9381 | 171.481 |
| 5 | 19468 | 107710 | 7502.88 | 39.906 | 15.9667 | 171.543 |
| 5 | 19469 | 107544 | 7502.92 | 39.957 | 15.9952 | 171.605 |
| 5 | 19470 | 107377 | 7502.98 | 39.980 | 16.0238 | 171.667 |
| 5 | 19471 | 107211 | 7503.02 | 40.026 | 16.0523 | 171.729 |
| 5 | 19472 | 107045 | 7503.00 | 40.060 | 16.0808 | 171.791 |
| 5 | 19473 | 106879 | 7502.98 | 40.089 | 16.1093 | 171.853 |
| 5 | 19474 | 106713 | 7502.96 | 40.122 | 16.1378 | 171.915 |
| 5 | 19475 | 106547 | 7502.95 | 40.149 | 16.1663 | 171.978 |
| 5 | 19476 | 106382 | 7502.93 | 40.184 | 16.1947 | 172.040 |
| 5 | 19477 | 106216 | 7502.92 | 40.232 | 16.2231 | 172.102 |
| 5 | 19478 | 106051 | 7502.91 | 40.276 | 16.2515 | 172.164 |
| 5 | 19479 | 105886 | 7502.90 | 40.320 | 16.2799 | 172.227 |
| 5 | 19480 | 105721 | 7502.88 | 40.362 | 16.3083 | 172.289 |
| 5 | 19481 | 105556 | 7502.87 | 40.403 | 16.3366 | 172.351 |
| 5 | 19482 | 105391 | 7502.82 | 40.440 | 16.3649 | 172.414 |
| 5 | 19483 | 105226 | 7502.71 | 40.474 | 16.3932 | 172.476 |
| 5 | 19484 | 105062 | 7502.60 | 40.508 | 16.4215 | 172.539 |
| 5 | 19485 | 104897 | 7502.49 | 40.538 | 16.4498 | 172.601 |
| 5 | 19486 | 104733 | 7502.39 | 40.565 | 16.4780 | 172.663 |
| 5 | 19487 | 104569 | 7502.28 | 40.593 | 16.5063 | 172.726 |
| 5 | 19488 | 104405 | 7502.17 | 40.618 | 16.5345 | 172.788 |
| 5 | 19489 | 104242 | 7502.07 | 40.637 | 16.5626 | 172.851 |
| 5 | 19490 | 104078 | 7501.96 | 40.660 | 16.5908 | 172.914 |
| 5 | 19491 | 103914 | 7501.85 | 40.674 | 16.6189 | 172.976 |
| 5 | 19492 | 103751 | 7501.75 | 40.691 | 16.6471 | 173.039 |
| 5 | 19493 | 103588 | 7501.64 | 40.702 | 16.6752 | 173.101 |
| 5 | 19494 | 103425 | 7501.47 | 40.716 | 16.7033 | 173.164 |
| 5 | 19495 | 103262 | 7501.29 | 40.741 | 16.7313 | 173.227 |
| 5 | 19496 | 103099 | 7501.11 | 40.748 | 16.7594 | 173.289 |
| 5 | 19497 | 102936 | 7500.95 | 40.751 | 16.7874 | 173.352 |
| 5 | 19498 | 102774 | 7500.77 | 40.774 | 16.8154 | 173.415 |
| 5 | 19499 | 102612 | 7500.60 | 40.780 | 16.8434 | 173.477 |
| 5 | 19500 | 102449 | 7500.43 | 40.787 | 16.8713 | 173.540 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19401 | 119156 | 7481.66 | 40.820 | 14.0116 | 167.433 |
| 5 | 19402 | 118982 | 7481.97 | 40.811 | 14.0413 | 167.493 |
| 5 | 19403 | 118807 | 7482.28 | 40.802 | 14.0710 | 167.554 |
| 5 | 19404 | 118632 | 7482.60 | 40.795 | 14.1007 | 167.615 |
| 5 | 19405 | 118458 | 7482.91 | 40.791 | 14.1304 | 167.675 |
| 5 | 19406 | 118284 | 7483.22 | 40.789 | 14.1601 | 167.736 |
| 5 | 19407 | 118110 | 7483.54 | 40.785 | 14.1897 | 167.797 |
| 5 | 19408 | 117935 | 7483.85 | 40.787 | 14.2194 | 167.858 |
| 5 | 19409 | 117761 | 7484.16 | 40.787 | 14.2490 | 167.918 |
| 5 | 19410 | 117588 | 7484.48 | 40.782 | 14.2786 | 167.979 |
| 5 | 19411 | 117414 | 7484.79 | 40.790 | 14.3082 | 168.040 |
| 5 | 19412 | 117240 | 7485.11 | 40.797 | 14.3378 | 168.101 |
| 5 | 19413 | 117067 | 7485.42 | 40.827 | 14.3673 | 168.162 |
| 5 | 19414 | 116893 | 7485.73 | 40.859 | 14.3969 | 168.223 |
| 5 | 19415 | 116720 | 7486.04 | 40.889 | 14.4264 | 168.284 |
| 5 | 19416 | 116547 | 7486.36 | 40.921 | 14.4559 | 168.345 |
| 5 | 19417 | 116374 | 7486.79 | 40.959 | 14.4854 | 168.406 |
| 5 | 19418 | 116201 | 7487.47 | 40.990 | 14.5149 | 168.466 |
| 5 | 19419 | 116028 | 7488.15 | 40.967 | 14.5444 | 168.528 |
| 5 | 19420 | 115855 | 7488.83 | 40.884 | 14.5738 | 168.589 |
| 5 | 19421 | 115683 | 7489.51 | 40.801 | 14.6032 | 168.650 |
| 5 | 19422 | 115510 | 7490.19 | 40.716 | 14.6326 | 168.711 |
| 5 | 19423 | 115338 | 7490.87 | 40.629 | 14.6620 | 168.772 |
| 5 | 19424 | 115166 | 7491.55 | 40.556 | 14.6914 | 168.833 |
| 5 | 19425 | 114994 | 7492.23 | 40.493 | 14.7208 | 168.894 |
| 5 | 19426 | 114822 | 7492.91 | 40.428 | 14.7501 | 168.955 |
| 5 | 19427 | 114650 | 7493.58 | 40.366 | 14.7794 | 169.016 |
| 5 | 19428 | 114478 | 7494.15 | 40.302 | 14.8088 | 169.077 |
| 5 | 19429 | 114307 | 7494.66 | 40.246 | 14.8380 | 169.139 |
| 5 | 19430 | 114135 | 7495.17 | 40.190 | 14.8673 | 169.200 |
| 5 | 19431 | 113964 | 7495.68 | 40.132 | 14.8966 | 169.261 |
| 5 | 19432 | 113793 | 7496.18 | 40.075 | 14.9258 | 169.322 |
| 5 | 19433 | 113621 | 7496.69 | 40.020 | 14.9550 | 169.384 |
| 5 | 19434 | 113450 | 7497.20 | 39.969 | 14.9843 | 169.445 |
| 5 | 19435 | 113280 | 7497.70 | 39.912 | 15.0134 | 169.506 |
| 5 | 19436 | 113109 | 7498.21 | 39.863 | 15.0426 | 169.568 |
| 5 | 19437 | 112938 | 7498.71 | 39.814 | 15.0718 | 169.629 |
| 5 | 19438 | 112768 | 7499.19 | 39.761 | 15.1009 | 169.691 |
| 5 | 19439 | 112597 | 7499.36 | 39.710 | 15.1300 | 169.752 |
| 5 | 19440 | 112427 | 7499.54 | 39.659 | 15.1591 | 169.813 |
| 5 | 19441 | 112257 | 7499.71 | 39.611 | 15.1882 | 169.875 |
| 5 | 19442 | 112087 | 7499.88 | 39.564 | 15.2173 | 169.936 |
| 5 | 19443 | 111917 | 7500.06 | 39.525 | 15.2463 | 169.998 |
| 5 | 19444 | 111747 | 7500.24 | 39.487 | 15.2754 | 170.059 |
| 5 | 19445 | 111577 | 7500.41 | 39.455 | 15.3044 | 170.121 |
| 5 | 19446 | 111408 | 7500.58 | 39.418 | 15.3334 | 170.183 |
| 5 | 19447 | 111238 | 7500.76 | 39.383 | 15.3623 | 170.244 |
| 5 | 19448 | 111069 | 7500.94 | 39.349 | 15.3913 | 170.306 |
| 5 | 19449 | 110900 | 7501.09 | 39.315 | 15.4203 | 170.367 |
| 5 | 19450 | 110731 | 7501.21 | 39.282 | 15.4492 | 170.429 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19351 | 128035 | 7459.93 | 40.854 | 12.5057 | 164.425 |
| 5 | 19352 | 127855 | 7460.16 | 40.879 | 12.5361 | 164.484 |
| 5 | 19353 | 127675 | 7460.38 | 40.905 | 12.5666 | 164.544 |
| 5 | 19354 | 127495 | 7460.61 | 40.934 | 12.5970 | 164.604 |
| 5 | 19355 | 127315 | 7460.83 | 40.964 | 12.6275 | 164.664 |
| 5 | 19356 | 127135 | 7461.05 | 40.999 | 12.6579 | 164.723 |
| 5 | 19357 | 126956 | 7461.27 | 41.018 | 12.6883 | 164.783 |
| 5 | 19358 | 126776 | 7461.49 | 41.008 | 12.7187 | 164.843 |
| 5 | 19359 | 126597 | 7461.71 | 40.985 | 12.7490 | 164.903 |
| 5 | 19360 | 126417 | 7461.94 | 40.961 | 12.7794 | 164.963 |
| 5 | 19361 | 126238 | 7462.16 | 40.948 | 12.8097 | 165.022 |
| 5 | 19362 | 126059 | 7462.38 | 40.921 | 12.8401 | 165.082 |
| 5 | 19363 | 125880 | 7462.61 | 40.898 | 12.8704 | 165.142 |
| 5 | 19364 | 125701 | 7462.83 | 40.874 | 12.9007 | 165.202 |
| 5 | 19365 | 125522 | 7463.05 | 40.846 | 12.9310 | 165.262 |
| 5 | 19366 | 125343 | 7463.28 | 40.828 | 12.9612 | 165.322 |
| 5 | 19367 | 125165 | 7463.50 | 40.806 | 12.9915 | 165.382 |
| 5 | 19368 | 124986 | 7463.72 | 40.793 | 13.0217 | 165.442 |
| 5 | 19369 | 124808 | 7463.94 | 40.778 | 13.0520 | 165.502 |
| 5 | 19370 | 124630 | 7464.17 | 40.761 | 13.0822 | 165.562 |
| 5 | 19371 | 124451 | 7464.39 | 40.751 | 13.1124 | 165.622 |
| 5 | 19372 | 124273 | 7464.61 | 40.733 | 13.1426 | 165.682 |
| 5 | 19373 | 124095 | 7464.83 | 40.731 | 13.1727 | 165.742 |
| 5 | 19374 | 123918 | 7465.05 | 40.718 | 13.2029 | 165.802 |
| 5 | 19375 | 123740 | 7465.27 | 40.712 | 13.2331 | 165.862 |
| 5 | 19376 | 123562 | 7465.50 | 40.718 | 13.2632 | 165.923 |
| 5 | 19377 | 123385 | 7465.72 | 40.730 | 13.2933 | 165.983 |
| 5 | 19378 | 123207 | 7465.94 | 40.738 | 13.3234 | 166.043 |
| 5 | 19379 | 123030 | 7466.16 | 40.754 | 13.3535 | 166.103 |
| 5 | 19380 | 122853 | 7466.38 | 40.767 | 13.3836 | 166.163 |
| 5 | 19381 | 122675 | 7466.60 | 40.784 | 13.4136 | 166.224 |
| 5 | 19382 | 122498 | 7466.82 | 40.802 | 13.4437 | 166.284 |
| 5 | 19383 | 122322 | 7467.04 | 40.823 | 13.4737 | 166.344 |
| 5 | 19384 | 122145 | 7467.26 | 40.846 | 13.5037 | 166.404 |
| 5 | 19385 | 121968 | 7467.48 | 40.867 | 13.5337 | 166.465 |
| 5 | 19386 | 121791 | 7476.26 | 40.891 | 13.5637 | 166.525 |
| 5 | 19387 | 121615 | 7476.65 | 40.917 | 13.5936 | 166.585 |
| 5 | 19388 | 121439 | 7477.05 | 40.948 | 13.6236 | 166.646 |
| 5 | 19389 | 121262 | 7477.44 | 40.976 | 13.6535 | 166.706 |
| 5 | 19390 | 121086 | 7477.82 | 41.011 | 13.6835 | 166.767 |
| 5 | 19391 | 120910 | 7478.21 | 40.990 | 13.7134 | 166.827 |
| 5 | 19392 | 120734 | 7478.59 | 40.966 | 13.7432 | 166.888 |
| 5 | 19393 | 120559 | 7478.98 | 40.946 | 13.7731 | 166.948 |
| 5 | 19394 | 120383 | 7479.37 | 40.928 | 13.8030 | 167.008 |
| 5 | 19395 | 120207 | 7479.75 | 40.904 | 13.8328 | 167.069 |
| 5 | 19396 | 120032 | 7480.11 | 40.887 | 13.8627 | 167.130 |
| 5 | 19397 | 119857 | 7480.42 | 40.871 | 13.8925 | 167.190 |
| 5 | 19398 | 119681 | 7480.73 | 40.857 | 13.9223 | 167.251 |
| 5 | 19399 | 119506 | 7481.04 | 40.843 | 13.9521 | 167.311 |
| 5 | 19400 | 119331 | 7481.35 | 40.830 | 13.9818 | 167.372 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19301 | 137169 | 7448.52 | 40.563 | 10.9661 | 161.463 |
| 5 | 19302 | 136984 | 7448.75 | 40.573 | 10.9972 | 161.522 |
| 5 | 19303 | 136799 | 7448.98 | 40.579 | 11.0283 | 161.581 |
| 5 | 19304 | 136614 | 7449.22 | 40.592 | 11.0593 | 161.639 |
| 5 | 19305 | 136430 | 7449.45 | 40.610 | 11.0904 | 161.698 |
| 5 | 19306 | 136245 | 7449.68 | 40.627 | 11.1214 | 161.757 |
| 5 | 19307 | 136060 | 7449.91 | 40.647 | 11.1525 | 161.816 |
| 5 | 19308 | 135876 | 7450.14 | 40.666 | 11.1835 | 161.875 |
| 5 | 19309 | 135692 | 7450.37 | 40.692 | 11.2145 | 161.934 |
| 5 | 19310 | 135507 | 7450.60 | 40.717 | 11.2455 | 161.993 |
| 5 | 19311 | 135323 | 7450.83 | 40.743 | 11.2764 | 162.052 |
| 5 | 19312 | 135139 | 7451.06 | 40.773 | 11.3074 | 162.111 |
| 5 | 19313 | 134955 | 7451.29 | 40.805 | 11.3384 | 162.170 |
| 5 | 19314 | 134771 | 7451.52 | 40.834 | 11.3693 | 162.229 |
| 5 | 19315 | 134588 | 7451.76 | 40.869 | 11.4003 | 162.288 |
| 5 | 19316 | 134404 | 7451.99 | 40.915 | 11.4312 | 162.347 |
| 5 | 19317 | 134220 | 7452.21 | 40.953 | 11.4621 | 162.406 |
| 5 | 19318 | 134037 | 7452.44 | 40.989 | 11.4930 | 162.465 |
| 5 | 19319 | 133853 | 7452.67 | 41.020 | 11.5239 | 162.524 |
| 5 | 19320 | 133670 | 7452.90 | 41.038 | 11.5548 | 162.583 |
| 5 | 19321 | 133487 | 7453.12 | 41.049 | 11.5856 | 162.642 |
| 5 | 19322 | 133304 | 7453.34 | 41.010 | 11.6165 | 162.701 |
| 5 | 19323 | 133121 | 7453.57 | 40.959 | 11.6473 | 162.761 |
| 5 | 19324 | 132938 | 7453.80 | 40.925 | 11.6781 | 162.820 |
| 5 | 19325 | 132755 | 7454.03 | 40.884 | 11.7089 | 162.879 |
| 5 | 19326 | 132572 | 7454.26 | 40.846 | 11.7397 | 162.938 |
| 5 | 19327 | 132390 | 7454.49 | 40.812 | 11.7705 | 162.998 |
| 5 | 19328 | 132207 | 7454.72 | 40.780 | 11.8013 | 163.057 |
| 5 | 19329 | 132025 | 7454.95 | 40.756 | 11.8321 | 163.116 |
| 5 | 19330 | 131842 | 7455.17 | 40.747 | 11.8628 | 163.175 |
| 5 | 19331 | 131660 | 7455.40 | 40.729 | 11.8936 | 163.235 |
| 5 | 19332 | 131478 | 7455.63 | 40.719 | 11.9243 | 163.294 |
| 5 | 19333 | 131296 | 7455.86 | 40.713 | 11.9550 | 163.353 |
| 5 | 19334 | 131114 | 7456.09 | 40.707 | 11.9857 | 163.413 |
| 5 | 19335 | 130932 | 7456.31 | 40.699 | 12.0164 | 163.472 |
| 5 | 19336 | 130750 | 7456.54 | 40.696 | 12.0471 | 163.531 |
| 5 | 19337 | 130568 | 7456.77 | 40.695 | 12.0777 | 163.591 |
| 5 | 19338 | 130387 | 7456.99 | 40.694 | 12.1084 | 163.650 |
| 5 | 19339 | 130205 | 7457.22 | 40.696 | 12.1390 | 163.710 |
| 5 | 19340 | 130024 | 7457.45 | 40.697 | 12.1697 | 163.769 |
| 5 | 19341 | 129843 | 7457.67 | 40.703 | 12.2003 | 163.829 |
| 5 | 19342 | 129661 | 7457.90 | 40.708 | 12.2309 | 163.888 |
| 5 | 19343 | 129480 | 7458.13 | 40.721 | 12.2615 | 163.948 |
| 5 | 19344 | 129299 | 7458.35 | 40.727 | 12.2920 | 164.007 |
| 5 | 19345 | 129118 | 7458.58 | 40.743 | 12.3226 | 164.067 |
| 5 | 19346 | 128938 | 7458.80 | 40.754 | 12.3531 | 164.126 |
| 5 | 19347 | 128757 | 7459.03 | 40.770 | 12.3837 | 164.186 |
| 5 | 19348 | 128576 | 7459.26 | 40.787 | 12.4142 | 164.246 |
| 5 | 19349 | 128396 | 7459.48 | 40.808 | 12.4447 | 164.305 |
| 5 | 19350 | 128216 | 7459.71 | 40.828 | 12.4752 | 164.365 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19250 | 146715 | 7436.57 | 40.704 | 9.3668 | 158.485 |
| 5 | 19251 | 146526 | 7436.81 | 40.703 | 9.3984 | 158.543 |
| 5 | 19252 | 146336 | 7437.05 | 40.707 | 9.4300 | 158.601 |
| 5 | 19253 | 146147 | 7437.28 | 40.698 | 9.4616 | 158.659 |
| 5 | 19254 | 145958 | 7437.52 | 40.713 | 9.4932 | 158.717 |
| 5 | 19255 | 145770 | 7437.76 | 40.719 | 9.5247 | 158.775 |
| 5 | 19256 | 145581 | 7437.99 | 40.728 | 9.5563 | 158.833 |
| 5 | 19257 | 145392 | 7438.23 | 40.738 | 9.5878 | 158.891 |
| 5 | 19258 | 145203 | 7438.47 | 40.750 | 9.6194 | 158.949 |
| 5 | 19259 | 145015 | 7438.70 | 40.763 | 9.6509 | 159.008 |
| 5 | 19260 | 144826 | 7438.94 | 40.776 | 9.6824 | 159.066 |
| 5 | 19261 | 144638 | 7439.18 | 40.791 | 9.7139 | 159.124 |
| 5 | 19262 | 144450 | 7439.41 | 40.805 | 9.7454 | 159.182 |
| 5 | 19263 | 144261 | 7439.65 | 40.828 | 9.7769 | 159.240 |
| 5 | 19264 | 144073 | 7439.88 | 40.851 | 9.8084 | 159.298 |
| 5 | 19265 | 143885 | 7440.12 | 40.873 | 9.8399 | 159.357 |
| 5 | 19267 | 143509 | 7440.59 | 40.927 | 9.9028 | 159.473 |
| 5 | 19268 | 143321 | 7440.83 | 40.955 | 9.9342 | 159.531 |
| 5 | 19269 | 143133 | 7441.06 | 40.984 | 9.9657 | 159.590 |
| 5 | 19270 | 142946 | 7441.29 | 41.021 | 9.9971 | 159.648 |
| 5 | 19271 | 142758 | 7441.52 | 41.019 | 10.0285 | 159.706 |
| 5 | 19272 | 142571 | 7441.76 | 40.995 | 10.0599 | 159.765 |
| 5 | 19273 | 142383 | 7441.99 | 40.980 | 10.0913 | 159.823 |
| 5 | 19274 | 142196 | 7442.22 | 40.960 | 10.1227 | 159.881 |
| 5 | 19275 | 142009 | 7442.46 | 40.945 | 10.1541 | 159.940 |
| 5 | 19276 | 141821 | 7442.69 | 40.937 | 10.1854 | 159.998 |
| 5 | 19277 | 141634 | 7442.93 | 40.920 | 10.2168 | 160.056 |
| 5 | 19278 | 141447 | 7443.16 | 40.891 | 10.2481 | 160.115 |
| 5 | 19279 | 141260 | 7443.39 | 40.853 | 10.2795 | 160.173 |
| 5 | 19280 | 141073 | 7443.63 | 40.822 | 10.3108 | 160.232 |
| 5 | 19281 | 140887 | 7443.86 | 40.791 | 10.3421 | 160.290 |
| 5 | 19282 | 140700 | 7444.10 | 40.755 | 10.3734 | 160.349 |
| 5 | 19283 | 140513 | 7444.33 | 40.736 | 10.4047 | 160.407 |
| 5 | 19284 | 140327 | 7444.56 | 40.710 | 10.4360 | 160.466 |
| 5 | 19285 | 140140 | 7444.80 | 40.687 | 10.4672 | 160.524 |
| 5 | 19286 | 139954 | 7445.03 | 40.664 | 10.4985 | 160.583 |
| 5 | 19287 | 139768 | 7445.26 | 40.637 | 10.5298 | 160.641 |
| 5 | 19288 | 139581 | 7445.50 | 40.619 | 10.5610 | 160.700 |
| 5 | 19289 | 139395 | 7445.73 | 40.604 | 10.5922 | 160.759 |
| 5 | 19290 | 139209 | 7445.96 | 40.588 | 10.6234 | 160.817 |
| 5 | 19291 | 139023 | 7446.20 | 40.573 | 10.6546 | 160.876 |
| 5 | 19292 | 138838 | 7446.43 | 40.560 | 10.6858 | 160.934 |
| 5 | 19293 | 138652 | 7446.66 | 40.549 | 10.7170 | 160.993 |
| 5 | 19294 | 138466 | 7446.89 | 40.546 | 10.7482 | 161.052 |
| 5 | 19295 | 138281 | 7447.13 | 40.538 | 10.7794 | 161.110 |
| 5 | 19296 | 138095 | 7447.36 | 40.539 | 10.8105 | 161.169 |
| 5 | 19297 | 137910 | 7447.59 | 40.540 | 10.8417 | 161.228 |
| 5 | 19298 | 137724 | 7447.83 | 40.548 | 10.8728 | 161.287 |
| 5 | 19299 | 137539 | 7448.06 | 40.552 | 10.9039 | 161.345 |
| 5 | 19300 | 137354 | 7448.29 | 40.554 | 10.9350 | 161.404 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19200 | 156265 | 7424.62 | 39.568 | 7.7759 | 155.603 |
| 5 | 19201 | 156072 | 7424.86 | 39.606 | 7.8079 | 155.660 |
| 5 | 19202 | 155880 | 7425.10 | 39.647 | 7.8399 | 155.718 |
| 5 | 19203 | 155687 | 7425.34 | 39.691 | 7.8719 | 155.775 |
| 5 | 19204 | 155495 | 7425.58 | 39.740 | 7.9039 | 155.832 |
| 5 | 19205 | 155302 | 7425.82 | 39.787 | 7.9359 | 155.890 |
| 5 | 19206 | 155110 | 7426.06 | 39.833 | 7.9678 | 155.947 |
| 5 | 19207 | 154918 | 7426.31 | 39.886 | 7.9998 | 156.004 |
| 5 | 19208 | 154726 | 7426.55 | 39.937 | 8.0318 | 156.062 |
| 5 | 19209 | 154533 | 7426.79 | 39.989 | 8.0637 | 156.119 |
| 5 | 19210 | 154341 | 7427.03 | 40.052 | 8.0957 | 156.177 |
| 5 | 19211 | 154149 | 7427.27 | 40.121 | 8.1276 | 156.234 |
| 5 | 19212 | 153957 | 7427.51 | 40.202 | 8.1595 | 156.292 |
| 5 | 19213 | 153766 | 7427.75 | 40.281 | 8.1914 | 156.349 |
| 5 | 19214 | 153574 | 7427.99 | 40.367 | 8.2234 | 156.407 |
| 5 | 19215 | 153382 | 7428.23 | 40.449 | 8.2553 | 156.464 |
| 5 | 19216 | 153190 | 7428.48 | 40.538 | 8.2872 | 156.522 |
| 5 | 19217 | 152999 | 7428.71 | 40.626 | 8.3190 | 156.579 |
| 5 | 19218 | 152807 | 7428.95 | 40.716 | 8.3509 | 156.637 |
| 5 | 19219 | 152616 | 7429.20 | 40.807 | 8.3828 | 156.694 |
| 5 | 19220 | 152424 | 7429.44 | 40.905 | 8.4147 | 156.752 |
| 5 | 19221 | 152233 | 7429.68 | 41.002 | 8.4465 | 156.809 |
| 5 | 19222 | 152042 | 7429.91 | 41.103 | 8.4784 | 156.867 |
| 5 | 19223 | 151850 | 7430.15 | 41.200 | 8.5102 | 156.924 |
| 5 | 19224 | 151659 | 7430.39 | 41.239 | 8.5420 | 156.982 |
| 5 | 19225 | 151468 | 7430.63 | 41.272 | 8.5739 | 157.040 |
| 5 | 19226 | 151277 | 7430.86 | 41.265 | 8.6057 | 157.097 |
| 5 | 19227 | 151086 | 7431.10 | 41.269 | 8.6375 | 157.155 |
| 5 | 19228 | 150895 | 7431.34 | 41.255 | 8.6693 | 157.213 |
| 5 | 19229 | 150705 | 7431.57 | 41.232 | 8.7011 | 157.270 |
| 5 | 19230 | 150514 | 7431.81 | 41.209 | 8.7329 | 157.328 |
| 5 | 19231 | 150323 | 7432.05 | 41.184 | 8.7647 | 157.386 |
| 5 | 19232 | 150133 | 7432.29 | 41.145 | 8.7964 | 157.443 |
| 5 | 19233 | 149942 | 7432.53 | 41.100 | 8.8282 | 157.501 |
| 5 | 19234 | 149752 | 7432.76 | 41.064 | 8.8599 | 157.559 |
| 5 | 19235 | 149561 | 7433.00 | 41.027 | 8.8917 | 157.617 |
| 5 | 19236 | 149371 | 7433.24 | 40.994 | 8.9234 | 157.675 |
| 5 | 19237 | 149181 | 7433.48 | 40.961 | 8.9552 | 157.732 |
| 5 | 19238 | 148991 | 7433.72 | 40.925 | 8.9869 | 157.790 |
| 5 | 19239 | 148801 | 7433.95 | 40.886 | 9.0186 | 157.848 |
| 5 | 19240 | 148611 | 7434.19 | 40.853 | 9.0503 | 157.906 |
| 5 | 19241 | 148421 | 7434.43 | 40.820 | 9.0820 | 157.964 |
| 5 | 19242 | 148231 | 7434.67 | 40.794 | 9.1137 | 158.022 |
| 5 | 19243 | 148041 | 7434.91 | 40.762 | 9.1453 | 158.079 |
| 5 | 19244 | 147851 | 7435.15 | 40.750 | 9.1770 | 158.137 |
| 5 | 19245 | 147662 | 7435.39 | 40.736 | 9.2087 | 158.195 |
| 5 | 19246 | 147472 | 7435.62 | 40.726 | 9.2403 | 158.253 |
| 5 | 19247 | 147283 | 7435.86 | 40.717 | 9.2720 | 158.311 |
| 5 | 19248 | 147093 | 7436.10 | 40.709 | 9.3036 | 158.369 |
| 5 | 19249 | 146904 | 7436.34 | 40.705 | 9.3352 | 158.427 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19150 | 165972 | 7412.46 | 41.352 | 6.1675 | 152.753 |
| 5 | 19151 | 165776 | 7412.70 | 41.310 | 6.1998 | 152.810 |
| 5 | 19152 | 165581 | 7412.95 | 41.288 | 6.2321 | 152.867 |
| 5 | 19153 | 165385 | 7413.19 | 41.256 | 6.2644 | 152.924 |
| 5 | 19154 | 165190 | 7413.44 | 41.229 | 6.2967 | 152.980 |
| 5 | 19155 | 164995 | 7413.68 | 41.202 | 6.3290 | 153.037 |
| 5 | 19156 | 164800 | 7413.92 | 41.175 | 6.3613 | 153.094 |
| 5 | 19157 | 164604 | 7414.16 | 41.086 | 6.3935 | 153.151 |
| 5 | 19158 | 164409 | 7414.40 | 40.985 | 6.4258 | 153.207 |
| 5 | 19159 | 164214 | 7414.64 | 40.891 | 6.4581 | 153.264 |
| 5 | 19160 | 164019 | 7414.89 | 40.798 | 6.4903 | 153.321 |
| 5 | 19161 | 163824 | 7415.13 | 40.706 | 6.5226 | 153.378 |
| 5 | 19162 | 163629 | 7415.38 | 40.618 | 6.5548 | 153.435 |
| 5 | 19163 | 163435 | 7415.62 | 40.533 | 6.5871 | 153.491 |
| 5 | 19164 | 163240 | 7415.87 | 40.453 | 6.6193 | 153.548 |
| 5 | 19165 | 163045 | 7416.11 | 40.368 | 6.6515 | 153.605 |
| 5 | 19166 | 162850 | 7416.35 | 40.289 | 6.6838 | 153.662 |
| 5 | 19167 | 162656 | 7416.60 | 40.209 | 6.7160 | 153.719 |
| 5 | 19168 | 162461 | 7416.84 | 40.136 | 6.7482 | 153.776 |
| 5 | 19169 | 162267 | 7417.08 | 40.060 | 6.7804 | 153.833 |
| 5 | 19170 | 162072 | 7417.33 | 39.991 | 6.8126 | 153.890 |
| 5 | 19171 | 161878 | 7417.57 | 39.922 | 6.8448 | 153.947 |
| 5 | 19172 | 161684 | 7417.82 | 39.854 | 6.8770 | 154.004 |
| 5 | 19173 | 161489 | 7418.06 | 39.789 | 6.9092 | 154.060 |
| 5 | 19174 | 161295 | 7418.30 | 39.727 | 6.9414 | 154.117 |
| 5 | 19175 | 161101 | 7418.55 | 39.666 | 6.9736 | 154.174 |
| 5 | 19176 | 160907 | 7418.79 | 39.613 | 7.0058 | 154.231 |
| 5 | 19177 | 160713 | 7419.04 | 39.566 | 7.0379 | 154.288 |
| 5 | 19178 | 160519 | 7419.28 | 39.525 | 7.0701 | 154.345 |
| 5 | 19179 | 160325 | 7419.52 | 39.484 | 7.1022 | 154.402 |
| 5 | 19180 | 160131 | 7419.76 | 39.448 | 7.1344 | 154.460 |
| 5 | 19181 | 159937 | 7420.01 | 39.409 | 7.1665 | 154.517 |
| 5 | 19182 | 159743 | 7420.25 | 39.372 | 7.1986 | 154.574 |
| 5 | 19183 | 159549 | 7420.49 | 39.340 | 7.2308 | 154.631 |
| 5 | 19184 | 159356 | 7420.74 | 39.308 | 7.2629 | 154.688 |
| 5 | 19185 | 159162 | 7420.98 | 39.277 | 7.2950 | 154.745 |
| 5 | 19186 | 158968 | 7421.22 | 39.248 | 7.3271 | 154.802 |
| 5 | 19187 | 158775 | 7421.47 | 39.226 | 7.3592 | 154.859 |
| 5 | 19188 | 158582 | 7421.71 | 39.232 | 7.3913 | 154.916 |
| 5 | 19189 | 158388 | 7421.96 | 39.249 | 7.4234 | 154.973 |
| 5 | 19190 | 158195 | 7422.20 | 39.268 | 7.4555 | 155.031 |
| 5 | 19191 | 158002 | 7422.44 | 39.289 | 7.4876 | 155.088 |
| 5 | 19192 | 157808 | 7422.68 | 39.312 | 7.5196 | 155.145 |
| 5 | 19193 | 157615 | 7422.92 | 39.337 | 7.5517 | 155.202 |
| 5 | 19194 | 157422 | 7423.17 | 39.363 | 7.5837 | 155.259 |
| 5 | 19195 | 157229 | 7423.41 | 39.391 | 7.6158 | 155.317 |
| 5 | 19196 | 157036 | 7423.65 | 39.423 | 7.6478 | 155.374 |
| 5 | 19197 | 156843 | 7423.89 | 39.454 | 7.6799 | 155.431 |
| 5 | 19198 | 156650 | 7424.13 | 39.489 | 7.7119 | 155.488 |
| 5 | 19199 | 156458 | 7424.38 | 39.526 | 7.7439 | 155.546 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 19100 | 175801 | 7400.14 | 41.478 | 4.5465 | 149.931 |
| 5 | 19101 | 175603 | 7400.39 | 41.257 | 4.5790 | 149.987 |
| 5 | 19102 | 175405 | 7400.64 | 41.045 | 4.6115 | 150.044 |
| 5 | 19103 | 175208 | 7400.89 | 40.842 | 4.6440 | 150.100 |
| 5 | 19104 | 175011 | 7401.14 | 40.647 | 4.6765 | 150.156 |
| 5 | 19105 | 174813 | 7401.38 | 40.463 | 4.7090 | 150.212 |
| 5 | 19106 | 174616 | 7401.63 | 40.277 | 4.7415 | 150.269 |
| 5 | 19107 | 174418 | 7401.88 | 40.108 | 4.7740 | 150.325 |
| 5 | 19108 | 174221 | 7402.13 | 39.950 | 4.8065 | 150.381 |
| 5 | 19109 | 174024 | 7402.38 | 39.787 | 4.8390 | 150.437 |
| 5 | 19110 | 173827 | 7402.62 | 39.630 | 4.8714 | 150.494 |
| 5 | 19111 | 173629 | 7402.87 | 39.474 | 4.9039 | 150.550 |
| 5 | 19112 | 173432 | 7403.12 | 39.315 | 4.9364 | 150.606 |
| 5 | 19113 | 173235 | 7403.37 | 39.159 | 4.9689 | 150.663 |
| 5 | 19114 | 173038 | 7403.62 | 39.025 | 5.0013 | 150.719 |
| 5 | 19115 | 172841 | 7403.87 | 38.914 | 5.0338 | 150.775 |
| 5 | 19116 | 172644 | 7404.12 | 38.849 | 5.0663 | 150.832 |
| 5 | 19117 | 172447 | 7404.38 | 38.841 | 5.0987 | 150.888 |
| 5 | 19118 | 172250 | 7404.62 | 38.861 | 5.1312 | 150.944 |
| 5 | 19119 | 172053 | 7404.87 | 38.881 | 5.1636 | 151.001 |
| 5 | 19120 | 171856 | 7405.11 | 38.897 | 5.1961 | 151.057 |
| 5 | 19121 | 171660 | 7405.37 | 38.943 | 5.2285 | 151.113 |
| 5 | 19122 | 171463 | 7405.61 | 39.006 | 5.2609 | 151.170 |
| 5 | 19123 | 171266 | 7405.86 | 39.073 | 5.2934 | 151.226 |
| 5 | 19124 | 171069 | 7406.11 | 39.140 | 5.3258 | 151.283 |
| 5 | 19125 | 170873 | 7406.35 | 39.211 | 5.3582 | 151.339 |
| 5 | 19126 | 170676 | 7406.60 | 39.285 | 5.3907 | 151.396 |
| 5 | 19127 | 170480 | 7406.84 | 39.355 | 5.4231 | 151.452 |
| 5 | 19128 | 170283 | 7407.09 | 39.429 | 5.4555 | 151.509 |
| 5 | 19129 | 170087 | 7407.34 | 39.508 | 5.4879 | 151.565 |
| 5 | 19130 | 169890 | 7407.58 | 39.592 | 5.5203 | 151.621 |
| 5 | 19131 | 169694 | 7407.83 | 39.673 | 5.5527 | 151.678 |
| 5 | 19132 | 169498 | 7408.07 | 39.756 | 5.5851 | 151.734 |
| 5 | 19133 | 169301 | 7408.32 | 39.839 | 5.6175 | 151.791 |
| 5 | 19134 | 169105 | 7408.57 | 39.930 | 5.6499 | 151.848 |
| 5 | 19135 | 168909 | 7408.81 | 40.022 | 5.6823 | 151.904 |
| 5 | 19136 | 168713 | 7409.06 | 40.113 | 5.7147 | 151.961 |
| 5 | 19137 | 168517 | 7409.30 | 40.204 | 5.7470 | 152.017 |
| 5 | 19138 | 168321 | 7409.55 | 40.298 | 5.7794 | 152.074 |
| 5 | 19139 | 168125 | 7409.80 | 40.400 | 5.8118 | 152.130 |
| 5 | 19140 | 167929 | 7410.04 | 40.500 | 5.8441 | 152.187 |
| 5 | 19141 | 167733 | 7410.29 | 40.618 | 5.8765 | 152.243 |
| 5 | 19142 | 167537 | 7410.53 | 40.739 | 5.9088 | 152.300 |
| 5 | 19143 | 167341 | 7410.78 | 40.863 | 5.9412 | 152.357 |
| 5 | 19144 | 167145 | 7411.02 | 40.986 | 5.9735 | 152.413 |
| 5 | 19145 | 166949 | 7411.27 | 41.113 | 6.0059 | 152.470 |
| 5 | 19146 | 166754 | 7411.51 | 41.245 | 6.0382 | 152.527 |
| 5 | 19147 | 166558 | 7411.75 | 41.345 | 6.0705 | 152.583 |
| 5 | 19148 | 166363 | 7411.98 | 41.393 | 6.1029 | 152.640 |
| 5 | 19149 | 166167 | 7412.22 | 41.396 | 6.1352 | 152.697 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19050 | 185718 | 7387.74 | 41.347 | 2.9177 | 147.132 |
| 5 | 19051 | 185519 | 7387.99 | 41.413 | 2.9504 | 147.188 |
| 5 | 19052 | 185320 | 7388.23 | 41.481 | 2.9830 | 147.243 |
| 5 | 19053 | 185121 | 7388.48 | 41.553 | 3.0156 | 147.299 |
| 5 | 19054 | 184922 | 7388.73 | 41.628 | 3.0482 | 147.355 |
| 5 | 19055 | 184723 | 7388.98 | 41.702 | 3.0808 | 147.411 |
| 5 | 19056 | 184524 | 7389.23 | 41.777 | 3.1134 | 147.467 |
| 5 | 19057 | 184325 | 7389.48 | 41.858 | 3.1461 | 147.522 |
| 5 | 19058 | 184127 | 7389.73 | 41.936 | 3.1787 | 147.578 |
| 5 | 19059 | 183928 | 7389.98 | 42.015 | 3.2113 | 147.634 |
| 5 | 19060 | 183729 | 7390.22 | 42.103 | 3.2439 | 147.690 |
| 5 | 19061 | 183530 | 7390.47 | 42.186 | 3.2765 | 147.746 |
| 5 | 19062 | 183332 | 7390.72 | 42.275 | 3.3091 | 147.802 |
| 5 | 19063 | 183133 | 7390.96 | 42.326 | 3.3417 | 147.858 |
| 5 | 19064 | 182934 | 7391.21 | 42.391 | 3.3743 | 147.914 |
| 5 | 19065 | 182735 | 7391.46 | 42.459 | 3.4069 | 147.969 |
| 5 | 19066 | 182537 | 7391.71 | 42.525 | 3.4395 | 148.025 |
| 5 | 19067 | 182338 | 7391.96 | 42.597 | 3.4721 | 148.081 |
| 5 | 19068 | 182140 | 7392.21 | 42.671 | 3.5047 | 148.137 |
| 5 | 19069 | 181941 | 7392.45 | 42.746 | 3.5373 | 148.193 |
| 5 | 19070 | 181743 | 7392.70 | 42.819 | 3.5699 | 148.249 |
| 5 | 19071 | 181544 | 7392.95 | 42.898 | 3.6024 | 148.305 |
| 5 | 19072 | 181346 | 7393.20 | 42.977 | 3.6350 | 148.361 |
| 5 | 19073 | 181147 | 7393.45 | 43.060 | 3.6676 | 148.417 |
| 5 | 19074 | 180949 | 7393.70 | 43.143 | 3.7002 | 148.473 |
| 5 | 19075 | 180750 | 7393.94 | 43.233 | 3.7328 | 148.529 |
| 5 | 19076 | 180552 | 7394.18 | 43.282 | 3.7654 | 148.585 |
| 5 | 19077 | 180354 | 7394.43 | 43.258 | 3.7979 | 148.641 |
| 5 | 19078 | 180155 | 7394.68 | 43.231 | 3.8305 | 148.697 |
| 5 | 19079 | 179957 | 7394.92 | 43.208 | 3.8631 | 148.753 |
| 5 | 19080 | 179759 | 7395.17 | 43.185 | 3.8956 | 148.809 |
| 5 | 19081 | 179561 | 7395.42 | 43.170 | 3.9282 | 148.865 |
| 5 | 19082 | 179363 | 7395.67 | 43.150 | 3.9608 | 148.921 |
| 5 | 19083 | 179164 | 7395.92 | 43.132 | 3.9933 | 148.977 |
| 5 | 19084 | 178966 | 7396.16 | 43.123 | 4.0259 | 149.033 |
| 5 | 19085 | 178768 | 7396.41 | 43.111 | 4.0585 | 149.089 |
| 5 | 19086 | 178570 | 7396.66 | 43.094 | 4.0910 | 149.145 |
| 5 | 19087 | 178372 | 7396.91 | 43.087 | 4.1236 | 149.201 |
| 5 | 19088 | 178174 | 7397.16 | 43.085 | 4.1561 | 149.257 |
| 5 | 19089 | 177976 | 7397.40 | 43.084 | 4.1887 | 149.314 |
| 5 | 19090 | 177778 | 7397.65 | 43.080 | 4.2212 | 149.370 |
| 5 | 19091 | 177580 | 7397.90 | 43.092 | 4.2537 | 149.426 |
| 5 | 19092 | 177382 | 7398.16 | 43.165 | 4.2863 | 149.482 |
| 5 | 19093 | 177185 | 7398.39 | 43.066 | 4.3188 | 149.538 |
| 5 | 19094 | 176987 | 7398.65 | 42.863 | 4.3513 | 149.594 |
| 5 | 19095 | 176789 | 7398.90 | 42.640 | 4.3839 | 149.650 |
| 5 | 19096 | 176591 | 7399.15 | 42.386 | 4.4164 | 149.706 |
| 5 | 19097 | 176393 | 7399.40 | 42.144 | 4.4489 | 149.763 |
| 5 | 19098 | 176196 | 7399.65 | 41.921 | 4.4814 | 149.819 |
| 5 | 19099 | 175998 | 7399.89 | 41.702 | 4.5140 | 149.875 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 19000 | 195688 | 7375.31 | 35.614 | 1.2859 | 144.350 |
| 5 | 19001 | 195488 | 7375.56 | 35.727 | 1.3186 | 144.405 |
| 5 | 19002 | 195288 | 7375.81 | 35.841 | 1.3512 | 144.461 |
| 5 | 19003 | 195089 | 7376.06 | 35.958 | 1.3838 | 144.516 |
| 5 | 19004 | 194889 | 7376.31 | 36.076 | 1.4165 | 144.572 |
| 5 | 19005 | 194689 | 7376.56 | 36.196 | 1.4491 | 144.627 |
| 5 | 19006 | 194490 | 7376.80 | 36.318 | 1.4818 | 144.683 |
| 5 | 19007 | 194290 | 7377.05 | 36.444 | 1.5144 | 144.739 |
| 5 | 19008 | 194090 | 7377.30 | 36.570 | 1.5470 | 144.794 |
| 5 | 19009 | 193891 | 7377.55 | 36.702 | 1.5797 | 144.850 |
| 5 | 19010 | 193691 | 7377.80 | 36.828 | 1.6123 | 144.905 |
| 5 | 19011 | 193491 | 7378.05 | 36.968 | 1.6450 | 144.961 |
| 5 | 19012 | 193292 | 7378.30 | 37.097 | 1.6776 | 145.016 |
| 5 | 19013 | 193092 | 7378.55 | 37.233 | 1.7102 | 145.072 |
| 5 | 19014 | 192893 | 7378.80 | 37.375 | 1.7429 | 145.127 |
| 5 | 19015 | 192693 | 7379.05 | 37.514 | 1.7755 | 145.183 |
| 5 | 19016 | 192494 | 7379.30 | 37.655 | 1.8082 | 145.238 |
| 5 | 19017 | 192294 | 7379.55 | 37.799 | 1.8408 | 145.294 |
| 5 | 19018 | 192095 | 7379.80 | 37.948 | 1.8734 | 145.350 |
| 5 | 19019 | 191895 | 7380.04 | 38.097 | 1.9061 | 145.405 |
| 5 | 19020 | 191696 | 7380.30 | 38.246 | 1.9387 | 145.461 |
| 5 | 19021 | 191496 | 7380.54 | 38.397 | 1.9714 | 145.516 |
| 5 | 19022 | 191297 | 7380.79 | 38.554 | 2.0040 | 145.572 |
| 5 | 19023 | 191097 | 7381.04 | 38.711 | 2.0366 | 145.628 |
| 5 | 19024 | 190898 | 7381.29 | 38.870 | 2.0693 | 145.683 |
| 5 | 19025 | 190698 | 7381.54 | 39.031 | 2.1019 | 145.739 |
| 5 | 19026 | 190499 | 7381.79 | 39.187 | 2.1346 | 145.795 |
| 5 | 19027 | 190299 | 7382.04 | 39.354 | 2.1672 | 145.850 |
| 5 | 19028 | 190100 | 7382.28 | 39.500 | 2.1999 | 145.906 |
| 5 | 19029 | 189901 | 7382.53 | 39.632 | 2.2325 | 145.961 |
| 5 | 19030 | 189701 | 7382.77 | 39.747 | 2.2651 | 146.017 |
| 5 | 19031 | 189502 | 7383.02 | 39.850 | 2.2978 | 146.073 |
| 5 | 19032 | 189303 | 7383.27 | 39.933 | 2.3304 | 146.128 |
| 5 | 19033 | 189103 | 7383.52 | 40.024 | 2.3630 | 146.184 |
| 5 | 19034 | 188904 | 7383.77 | 40.115 | 2.3957 | 146.240 |
| 5 | 19035 | 188705 | 7384.01 | 40.206 | 2.4283 | 146.296 |
| 5 | 19036 | 188505 | 7384.26 | 40.287 | 2.4610 | 146.351 |
| 5 | 19037 | 188306 | 7384.51 | 40.349 | 2.4936 | 146.407 |
| 5 | 19038 | 188107 | 7384.76 | 40.423 | 2.5262 | 146.463 |
| 5 | 19039 | 187908 | 7385.01 | 40.498 | 2.5588 | 146.518 |
| 5 | 19040 | 187709 | 7385.25 | 40.572 | 2.5915 | 146.574 |
| 5 | 19041 | 187509 | 7385.50 | 40.647 | 2.6241 | 146.630 |
| 5 | 19042 | 187310 | 7385.75 | 40.725 | 2.6567 | 146.686 |
| 5 | 19043 | 187111 | 7386.00 | 40.807 | 2.6894 | 146.741 |
| 5 | 19044 | 186912 | 7386.25 | 40.887 | 2.7220 | 146.797 |
| 5 | 19045 | 186713 | 7386.50 | 40.968 | 2.7546 | 146.853 |
| 5 | 19046 | 186514 | 7386.75 | 41.052 | 2.7873 | 146.909 |
| 5 | 19047 | 186315 | 7387.00 | 41.140 | 2.8199 | 146.964 |
| 5 | 19048 | 186116 | 7387.24 | 41.219 | 2.8525 | 147.020 |
| 5 | 19049 | 185917 | 7387.49 | 41.286 | 2.8851 | 147.076 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18950 | 205675 | 7362.84 | 32.544 | -.3444 | 141.581 |
| 5 | 18951 | 205475 | 7363.09 | 32.557 | -.3118 | 141.636 |
| 5 | 18952 | 205276 | 7363.34 | 32.564 | -.2793 | 141.692 |
| 5 | 18953 | 205076 | 7363.59 | 32.580 | -.2467 | 141.747 |
| 5 | 18954 | 204876 | 7363.84 | 32.599 | -.2141 | 141.802 |
| 5 | 18955 | 204677 | 7364.09 | 32.619 | -.1816 | 141.857 |
| 5 | 18956 | 204477 | 7364.34 | 32.644 | -.1490 | 141.913 |
| 5 | 18957 | 204277 | 7364.59 | 32.666 | -.1164 | 141.968 |
| 5 | 18958 | 204077 | 7364.83 | 32.695 | -.0838 | 142.023 |
| 5 | 18959 | 203878 | 7365.08 | 32.721 | -.0513 | 142.079 |
| 5 | 18960 | 203678 | 7365.33 | 32.750 | -.0187 | 142.134 |
| 5 | 18961 | 203478 | 7365.58 | 32.782 | .0139 | 142.189 |
| 5 | 18962 | 203278 | 7365.83 | 32.822 | .0465 | 142.245 |
| 5 | 18963 | 203079 | 7366.08 | 32.856 | .0791 | 142.300 |
| 5 | 18964 | 202879 | 7366.33 | 32.895 | .1117 | 142.355 |
| 5 | 18965 | 202679 | 7366.58 | 32.937 | .1443 | 142.411 |
| 5 | 18966 | 202479 | 7366.83 | 32.973 | .1769 | 142.466 |
| 5 | 18967 | 202280 | 7367.08 | 33.022 | .2095 | 142.521 |
| 5 | 18968 | 202080 | 7367.33 | 33.065 | .2421 | 142.577 |
| 5 | 18969 | 201880 | 7367.58 | 33.108 | .2747 | 142.632 |
| 5 | 18970 | 201680 | 7367.83 | 33.161 | .3073 | 142.687 |
| 5 | 18971 | 201480 | 7368.08 | 33.214 | .3399 | 142.743 |
| 5 | 18972 | 201281 | 7368.32 | 33.270 | .3725 | 142.798 |
| 5 | 18973 | 201081 | 7368.57 | 33.325 | .4051 | 142.853 |
| 5 | 18974 | 200881 | 7368.82 | 33.385 | .4377 | 142.909 |
| 5 | 18975 | 200681 | 7369.07 | 33.446 | .4703 | 142.964 |
| 5 | 18976 | 200482 | 7369.32 | 33.507 | .5029 | 143.020 |
| 5 | 18977 | 200282 | 7369.57 | 33.572 | .5355 | 143.075 |
| 5 | 18978 | 200082 | 7369.82 | 33.637 | .5681 | 143.130 |
| 5 | 18979 | 199882 | 7370.07 | 33.707 | .6008 | 143.186 |
| 5 | 18980 | 199682 | 7370.32 | 33.778 | .6334 | 143.241 |
| 5 | 18981 | 199483 | 7370.57 | 33.849 | .6660 | 143.297 |
| 5 | 18982 | 199283 | 7370.82 | 33.925 | .6986 | 143.352 |
| 5 | 18983 | 199083 | 7371.07 | 34.000 | .7312 | 143.407 |
| 5 | 18984 | 198883 | 7371.32 | 34.085 | .7639 | 143.463 |
| 5 | 18985 | 198684 | 7371.57 | 34.161 | .7965 | 143.518 |
| 5 | 18986 | 198484 | 7371.82 | 34.246 | .8291 | 143.574 |
| 5 | 18987 | 198284 | 7372.07 | 34.334 | .8617 | 143.629 |
| 5 | 18988 | 198084 | 7372.31 | 34.417 | .8943 | 143.684 |
| 5 | 18989 | 197885 | 7372.57 | 34.507 | .9270 | 143.740 |
| 5 | 18990 | 197685 | 7372.81 | 34.603 | .9596 | 143.795 |
| 5 | 18991 | 197485 | 7373.06 | 34.692 | .9922 | 143.851 |
| 5 | 18992 | 197285 | 7373.31 | 34.783 | 1.0249 | 143.906 |
| 5 | 18993 | 197086 | 7373.56 | 34.877 | 1.0575 | 143.962 |
| 5 | 18994 | 196886 | 7373.81 | 34.978 | 1.0901 | 144.017 |
| 5 | 18995 | 196686 | 7374.06 | 35.085 | 1.1228 | 144.073 |
| 5 | 18996 | 196486 | 7374.31 | 35.185 | 1.1554 | 144.128 |
| 5 | 18997 | 196287 | 7374.56 | 35.288 | 1.1880 | 144.183 |
| 5 | 18998 | 196087 | 7374.81 | 35.393 | 1.2207 | 144.239 |
| 5 | 18999 | 195887 | 7375.06 | 35.500 | 1.2533 | 144.294 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18900 | 215646 | 7350.42 | 36.295 | -1.9689 | 138.820 |
| 5 | 18901 | 215447 | 7350.67 | 36.471 | -1.9364 | 138.875 |
| 5 | 18902 | 215248 | 7350.91 | 36.659 | -1.9040 | 138.930 |
| 5 | 18903 | 215049 | 7351.14 | 36.630 | -1.8716 | 138.986 |
| 5 | 18904 | 214850 | 7351.39 | 36.457 | -1.8392 | 139.041 |
| 5 | 18905 | 214651 | 7351.64 | 36.297 | -1.8068 | 139.096 |
| 5 | 18906 | 214451 | 7351.89 | 36.127 | -1.7744 | 139.151 |
| 5 | 18907 | 214252 | 7352.14 | 35.959 | -1.7419 | 139.206 |
| 5 | 18908 | 214053 | 7352.39 | 35.792 | -1.7095 | 139.262 |
| 5 | 18909 | 213854 | 7352.64 | 35.631 | -1.6771 | 139.317 |
| 5 | 18910 | 213655 | 7352.88 | 35.470 | -1.6446 | 139.372 |
| 5 | 18911 | 213456 | 7353.13 | 35.312 | -1.6122 | 139.427 |
| 5 | 18912 | 213256 | 7353.38 | 35.161 | -1.5798 | 139.482 |
| 5 | 18913 | 213057 | 7353.63 | 35.006 | -1.5473 | 139.537 |
| 5 | 18914 | 212858 | 7353.88 | 34.855 | -1.5149 | 139.593 |
| 5 | 18915 | 212658 | 7354.13 | 34.705 | -1.4824 | 139.648 |
| 5 | 18916 | 212459 | 7354.38 | 34.562 | -1.4499 | 139.703 |
| 5 | 18917 | 212260 | 7354.63 | 34.417 | -1.4175 | 139.758 |
| 5 | 18918 | 212061 | 7354.87 | 34.281 | -1.3850 | 139.813 |
| 5 | 18919 | 211861 | 7355.12 | 34.151 | -1.3525 | 139.869 |
| 5 | 18920 | 211662 | 7355.37 | 34.031 | -1.3201 | 139.924 |
| 5 | 18921 | 211462 | 7355.62 | 33.918 | -1.2876 | 139.979 |
| 5 | 18922 | 211263 | 7355.87 | 33.807 | -1.2551 | 140.034 |
| 5 | 18923 | 211064 | 7356.12 | 33.698 | -1.2226 | 140.089 |
| 5 | 18924 | 210864 | 7356.37 | 33.588 | -1.1901 | 140.145 |
| 5 | 18925 | 210665 | 7356.62 | 33.482 | -1.1576 | 140.200 |
| 5 | 18926 | 210465 | 7356.87 | 33.379 | -1.1251 | 140.255 |
| 5 | 18927 | 210266 | 7357.12 | 33.278 | -1.0927 | 140.310 |
| 5 | 18928 | 210066 | 7357.36 | 33.178 | -1.0601 | 140.366 |
| 5 | 18929 | 209867 | 7357.61 | 33.079 | -1.0276 | 140.421 |
| 5 | 18930 | 209667 | 7357.86 | 32.980 | -.9951 | 140.476 |
| 5 | 18931 | 209468 | 7358.10 | 32.850 | -.9626 | 140.531 |
| 5 | 18932 | 209268 | 7358.35 | 32.704 | -.9301 | 140.586 |
| 5 | 18933 | 209069 | 7358.61 | 32.665 | -.8976 | 140.642 |
| 5 | 18934 | 208869 | 7358.86 | 32.639 | -.8651 | 140.697 |
| 5 | 18935 | 208670 | 7359.10 | 32.617 | -.8326 | 140.752 |
| 5 | 18936 | 208470 | 7359.35 | 32.597 | -.8000 | 140.807 |
| 5 | 18937 | 208271 | 7359.60 | 32.584 | -.7675 | 140.863 |
| 5 | 18938 | 208071 | 7359.85 | 32.567 | -.7350 | 140.918 |
| 5 | 18939 | 207871 | 7360.10 | 32.552 | -.7024 | 140.973 |
| 5 | 18940 | 207672 | 7360.35 | 32.542 | -.6699 | 141.028 |
| 5 | 18941 | 207472 | 7360.60 | 32.533 | -.6374 | 141.084 |
| 5 | 18942 | 207272 | 7360.85 | 32.528 | -.6048 | 141.139 |
| 5 | 18943 | 207073 | 7361.10 | 32.521 | -.5723 | 141.194 |
| 5 | 18944 | 206873 | 7361.35 | 32.519 | -.5397 | 141.249 |
| 5 | 18945 | 206674 | 7361.59 | 32.519 | -.5072 | 141.305 |
| 5 | 18946 | 206474 | 7361.84 | 32.518 | -.4746 | 141.360 |
| 5 | 18947 | 206274 | 7362.09 | 32.522 | -.4421 | 141.415 |
| 5 | 18948 | 206075 | 7362.34 | 32.527 | -.4095 | 141.470 |
| 5 | 18949 | 205875 | 7362.59 | 32.535 | -.3770 | 141.526 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18850 | 225563 | 7338.06 | 30.149 | -3.5830 | 136.062 |
| 5 | 18851 | 225366 | 7338.31 | 30.218 | -3.5509 | 136.118 |
| 5 | 18852 | 225168 | 7338.55 | 30.293 | -3.5187 | 136.173 |
| 5 | 18853 | 224970 | 7338.80 | 30.374 | -3.4866 | 136.228 |
| 5 | 18854 | 224773 | 7339.05 | 30.455 | -3.4544 | 136.283 |
| 5 | 18855 | 224575 | 7339.29 | 30.539 | -3.4222 | 136.338 |
| 5 | 18856 | 224377 | 7339.54 | 30.623 | -3.3900 | 136.393 |
| 5 | 18857 | 224179 | 7339.78 | 30.709 | -3.3578 | 136.449 |
| 5 | 18858 | 223981 | 7340.03 | 30.798 | -3.3256 | 136.504 |
| 5 | 18859 | 223784 | 7340.28 | 30.889 | -3.2934 | 136.559 |
| 5 | 18860 | 223586 | 7340.52 | 30.981 | -3.2612 | 136.614 |
| 5 | 18861 | 223388 | 7340.77 | 31.079 | -3.2290 | 136.669 |
| 5 | 18862 | 223190 | 7341.02 | 31.171 | -3.1968 | 136.724 |
| 5 | 18863 | 222992 | 7341.26 | 31.272 | -3.1646 | 136.779 |
| 5 | 18864 | 222794 | 7341.51 | 31.370 | -3.1323 | 136.835 |
| 5 | 18865 | 222596 | 7341.76 | 31.478 | -3.1001 | 136.890 |
| 5 | 18866 | 222398 | 7342.00 | 31.580 | -3.0679 | 136.945 |
| 5 | 18867 | 222199 | 7342.25 | 31.684 | -3.0356 | 137.000 |
| 5 | 18868 | 222001 | 7342.50 | 31.792 | -3.0034 | 137.055 |
| 5 | 18869 | 221803 | 7342.74 | 31.901 | -2.9711 | 137.110 |
| 5 | 18870 | 221605 | 7342.99 | 32.010 | -2.9389 | 137.165 |
| 5 | 18871 | 221407 | 7343.24 | 32.125 | -2.9066 | 137.221 |
| 5 | 18872 | 221208 | 7343.49 | 32.242 | -2.8743 | 137.276 |
| 5 | 18873 | 221010 | 7343.73 | 32.362 | -2.8421 | 137.331 |
| 5 | 18874 | 220812 | 7343.98 | 32.484 | -2.8098 | 137.386 |
| 5 | 18875 | 220613 | 7344.23 | 32.607 | -2.7775 | 137.441 |
| 5 | 18876 | 220415 | 7344.47 | 32.731 | -2.7452 | 137.496 |
| 5 | 18877 | 220216 | 7344.72 | 32.857 | -2.7129 | 137.551 |
| 5 | 18878 | 220018 | 7344.97 | 32.985 | -2.6806 | 137.607 |
| 5 | 18879 | 219820 | 7345.22 | 33.114 | -2.6483 | 137.662 |
| 5 | 18880 | 219621 | 7345.46 | 33.244 | -2.6160 | 137.717 |
| 5 | 18881 | 219423 | 7345.71 | 33.379 | -2.5837 | 137.772 |
| 5 | 18882 | 219224 | 7345.96 | 33.518 | -2.5514 | 137.827 |
| 5 | 18883 | 219025 | 7346.20 | 33.651 | -2.5190 | 137.882 |
| 5 | 18884 | 218827 | 7346.45 | 33.791 | -2.4867 | 137.938 |
| 5 | 18885 | 218628 | 7346.70 | 33.934 | -2.4544 | 137.993 |
| 5 | 18886 | 218429 | 7346.95 | 34.080 | -2.4220 | 138.048 |
| 5 | 18887 | 218231 | 7347.20 | 34.221 | -2.3897 | 138.103 |
| 5 | 18888 | 218032 | 7347.44 | 34.373 | -2.3574 | 138.158 |
| 5 | 18889 | 217833 | 7347.69 | 34.520 | -2.3250 | 138.213 |
| 5 | 18890 | 217635 | 7347.94 | 34.675 | -2.2926 | 138.268 |
| 5 | 18891 | 217436 | 7348.19 | 34.825 | -2.2603 | 138.324 |
| 5 | 18892 | 217237 | 7348.43 | 34.981 | -2.2279 | 138.379 |
| 5 | 18893 | 217038 | 7348.68 | 35.138 | -2.1956 | 138.434 |
| 5 | 18894 | 216839 | 7348.93 | 35.300 | -2.1632 | 138.489 |
| 5 | 18895 | 216640 | 7349.18 | 35.461 | -2.1308 | 138.544 |
| 5 | 18896 | 216442 | 7349.43 | 35.624 | -2.0984 | 138.599 |
| 5 | 18897 | 216243 | 7349.67 | 35.789 | -2.0660 | 138.655 |
| 5 | 18898 | 216044 | 7349.92 | 35.955 | -2.0336 | 138.710 |
| 5 | 18899 | 215845 | 7350.17 | 36.122 | -2.0012 | 138.765 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18800 | 235394 | 7325.84 | 27.460 | -5.1828 | 133.303 |
| 5 | 18801 | 235198 | 7326.08 | 27.543 | -5.1509 | 133.359 |
| 5 | 18802 | 235003 | 7326.33 | 27.628 | -5.1191 | 133.414 |
| 5 | 18803 | 234807 | 7326.57 | 27.710 | -5.0873 | 133.469 |
| 5 | 18804 | 234611 | 7326.81 | 27.799 | -5.0554 | 133.524 |
| 5 | 18805 | 234416 | 7327.05 | 27.876 | -5.0236 | 133.579 |
| 5 | 18806 | 234220 | 7327.30 | 27.930 | -4.9917 | 133.635 |
| 5 | 18807 | 234024 | 7327.54 | 27.996 | -4.9598 | 133.690 |
| 5 | 18808 | 233828 | 7327.78 | 28.066 | -4.9280 | 133.745 |
| 5 | 18809 | 233632 | 7328.03 | 28.131 | -4.8961 | 133.800 |
| 5 | 18810 | 233436 | 7328.27 | 28.201 | -4.8642 | 133.856 |
| 5 | 18811 | 233240 | 7328.52 | 28.272 | -4.8323 | 133.911 |
| 5 | 18812 | 233044 | 7328.76 | 28.342 | -4.8004 | 133.966 |
| 5 | 18813 | 232848 | 7329.00 | 28.407 | -4.7685 | 134.021 |
| 5 | 18814 | 232652 | 7329.25 | 28.492 | -4.7365 | 134.076 |
| 5 | 18815 | 232456 | 7329.49 | 28.552 | -4.7046 | 134.132 |
| 5 | 18816 | 232260 | 7329.74 | 28.644 | -4.6727 | 134.187 |
| 5 | 18817 | 232063 | 7329.98 | 28.722 | -4.6408 | 134.242 |
| 5 | 18818 | 231867 | 7330.22 | 28.803 | -4.6088 | 134.297 |
| 5 | 18819 | 231671 | 7330.47 | 28.888 | -4.5768 | 134.352 |
| 5 | 18820 | 231474 | 7330.71 | 28.973 | -4.5449 | 134.407 |
| 5 | 18821 | 231278 | 7330.95 | 29.040 | -4.5129 | 134.463 |
| 5 | 18822 | 231081 | 7331.19 | 29.032 | -4.4810 | 134.518 |
| 5 | 18823 | 230885 | 7331.43 | 29.039 | -4.4490 | 134.573 |
| 5 | 18824 | 230688 | 7331.68 | 29.051 | -4.4170 | 134.628 |
| 5 | 18825 | 230492 | 7331.92 | 29.068 | -4.3850 | 134.683 |
| 5 | 18826 | 230295 | 7332.17 | 29.090 | -4.3530 | 134.739 |
| 5 | 18827 | 230098 | 7332.41 | 29.111 | -4.3210 | 134.794 |
| 5 | 18828 | 229901 | 7332.66 | 29.133 | -4.2890 | 134.849 |
| 5 | 18829 | 229705 | 7332.90 | 29.158 | -4.2569 | 134.904 |
| 5 | 18830 | 229508 | 7333.15 | 29.186 | -4.2249 | 134.959 |
| 5 | 18831 | 229311 | 7333.39 | 29.215 | -4.1929 | 135.014 |
| 5 | 18832 | 229114 | 7333.64 | 29.250 | -4.1608 | 135.070 |
| 5 | 18833 | 228917 | 7333.88 | 29.284 | -4.1288 | 135.125 |
| 5 | 18834 | 228720 | 7334.13 | 29.317 | -4.0967 | 135.180 |
| 5 | 18835 | 228523 | 7334.37 | 29.353 | -4.0647 | 135.235 |
| 5 | 18836 | 228326 | 7334.62 | 29.395 | -4.0326 | 135.290 |
| 5 | 18837 | 228129 | 7334.86 | 29.434 | -4.0005 | 135.345 |
| 5 | 18838 | 227932 | 7335.11 | 29.477 | -3.9685 | 135.401 |
| 5 | 18839 | 227735 | 7335.36 | 29.522 | -3.9364 | 135.456 |
| 5 | 18840 | 227537 | 7335.60 | 29.568 | -3.9043 | 135.511 |
| 5 | 18841 | 227340 | 7335.85 | 29.619 | -3.8722 | 135.566 |
| 5 | 18842 | 227143 | 7336.09 | 29.670 | -3.8401 | 135.621 |
| 5 | 18843 | 226946 | 7336.34 | 29.722 | -3.8080 | 135.676 |
| 5 | 18844 | 226748 | 7336.58 | 29.774 | -3.7759 | 135.732 |
| 5 | 18845 | 226551 | 7336.83 | 29.832 | -3.7438 | 135.787 |
| 5 | 18846 | 226353 | 7337.08 | 29.888 | -3.7116 | 135.842 |
| 5 | 18847 | 226156 | 7337.32 | 29.950 | -3.6795 | 135.897 |
| 5 | 18848 | 225958 | 7337.57 | 30.009 | -3.6474 | 135.952 |
| 5 | 18849 | 225761 | 7337.82 | 30.071 | -3.6152 | 136.007 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18750 | 245103 | 7313.79 | 21.215 | -6.7638 | 130.538 |
| 5 | 18751 | 244910 | 7314.02 | 21.318 | -6.7324 | 130.594 |
| 5 | 18752 | 244717 | 7314.26 | 21.425 | -6.7010 | 130.649 |
| 5 | 18753 | 244524 | 7314.50 | 21.531 | -6.6695 | 130.704 |
| 5 | 18754 | 244331 | 7314.74 | 21.637 | -6.6381 | 130.760 |
| 5 | 18755 | 244138 | 7314.98 | 21.748 | -6.6067 | 130.815 |
| 5 | 18756 | 243945 | 7315.22 | 21.863 | -6.5752 | 130.870 |
| 5 | 18757 | 243752 | 7315.46 | 21.980 | -6.5437 | 130.926 |
| 5 | 18758 | 243559 | 7315.70 | 22.094 | -6.5123 | 130.981 |
| 5 | 18759 | 243366 | 7315.94 | 22.214 | -6.4808 | 131.037 |
| 5 | 18760 | 243172 | 7316.18 | 22.335 | -6.4493 | 131.092 |
| 5 | 18761 | 242979 | 7316.42 | 22.457 | -6.4178 | 131.147 |
| 5 | 18762 | 242786 | 7316.67 | 22.579 | -6.3863 | 131.203 |
| 5 | 18763 | 242592 | 7316.91 | 22.705 | -6.3548 | 131.258 |
| 5 | 18764 | 242398 | 7317.15 | 22.830 | -6.3232 | 131.313 |
| 5 | 18765 | 242205 | 7317.39 | 22.957 | -6.2917 | 131.369 |
| 5 | 18766 | 242011 | 7317.63 | 23.088 | -6.2601 | 131.424 |
| 5 | 18767 | 241817 | 7317.87 | 23.223 | -6.2286 | 131.479 |
| 5 | 18768 | 241624 | 7318.11 | 23.357 | -6.1970 | 131.535 |
| 5 | 18769 | 241430 | 7318.35 | 23.485 | -6.1655 | 131.590 |
| 5 | 18770 | 241236 | 7318.59 | 23.633 | -6.1339 | 131.645 |
| 5 | 18771 | 241042 | 7318.83 | 23.774 | -6.1023 | 131.701 |
| 5 | 18772 | 240848 | 7319.07 | 23.913 | -6.0707 | 131.756 |
| 5 | 18773 | 240654 | 7319.32 | 24.057 | -6.0391 | 131.811 |
| 5 | 18774 | 240460 | 7319.56 | 24.206 | -6.0075 | 131.866 |
| 5 | 18775 | 240266 | 7319.80 | 24.356 | -5.9759 | 131.922 |
| 5 | 18776 | 240071 | 7320.04 | 24.511 | -5.9442 | 131.977 |
| 5 | 18777 | 239877 | 7320.28 | 24.669 | -5.9126 | 132.032 |
| 5 | 18778 | 239683 | 7320.52 | 24.828 | -5.8810 | 132.088 |
| 5 | 18779 | 239488 | 7320.77 | 24.985 | -5.8493 | 132.143 |
| 5 | 18780 | 239294 | 7321.01 | 25.152 | -5.8177 | 132.198 |
| 5 | 18781 | 239099 | 7321.25 | 25.321 | -5.7860 | 132.254 |
| 5 | 18782 | 238905 | 7321.49 | 25.480 | -5.7543 | 132.309 |
| 5 | 18783 | 238710 | 7321.74 | 25.655 | -5.7226 | 132.364 |
| 5 | 18784 | 238515 | 7321.98 | 25.817 | -5.6909 | 132.419 |
| 5 | 18785 | 238321 | 7322.22 | 25.999 | -5.6592 | 132.475 |
| 5 | 18786 | 238126 | 7322.46 | 26.151 | -5.6275 | 132.530 |
| 5 | 18787 | 237931 | 7322.70 | 26.286 | -5.5958 | 132.585 |
| 5 | 18788 | 237736 | 7322.94 | 26.409 | -5.5641 | 132.640 |
| 5 | 18789 | 237541 | 7323.18 | 26.505 | -5.5323 | 132.696 |
| 5 | 18790 | 237346 | 7323.42 | 26.609 | -5.5006 | 132.751 |
| 5 | 18791 | 237151 | 7323.66 | 26.713 | -5.4688 | 132.806 |
| 5 | 18792 | 236956 | 7323.90 | 26.792 | -5.4371 | 132.861 |
| 5 | 18793 | 236761 | 7324.14 | 26.868 | -5.4053 | 132.917 |
| 5 | 18794 | 236566 | 7324.39 | 26.960 | -5.3736 | 132.972 |
| 5 | 18795 | 236371 | 7324.63 | 27.059 | -5.3418 | 133.027 |
| 5 | 18796 | 236175 | 7324.87 | 27.154 | -5.3100 | 133.082 |
| 5 | 18797 | 235980 | 7325.11 | 27.217 | -5.2782 | 133.138 |
| 5 | 18798 | 235785 | 7325.36 | 27.303 | -5.2464 | 133.193 |
| 5 | 18799 | 235589 | 7325.60 | 27.380 | -5.2146 | 133.248 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18700 | 254656 | 7301.91 | 19.239 | -8.3220 | 127.762 |
| 5 | 18701 | 254467 | 7302.15 | 19.200 | -8.2911 | 127.818 |
| 5 | 18702 | 254278 | 7302.38 | 19.177 | -8.2601 | 127.874 |
| 5 | 18703 | 254088 | 7302.62 | 19.155 | -8.2292 | 127.929 |
| 5 | 18704 | 253899 | 7302.85 | 19.132 | -8.1983 | 127.985 |
| 5 | 18705 | 253709 | 7303.09 | 19.112 | -8.1673 | 128.041 |
| 5 | 18706 | 253519 | 7303.32 | 19.099 | -8.1363 | 128.096 |
| 5 | 18707 | 253330 | 7303.56 | 19.082 | -8.1054 | 128.152 |
| 5 | 18708 | 253140 | 7303.80 | 19.072 | -8.0744 | 128.207 |
| 5 | 18709 | 252950 | 7304.03 | 19.059 | -8.0434 | 128.263 |
| 5 | 18710 | 252760 | 7304.27 | 19.045 | -8.0124 | 128.319 |
| 5 | 18711 | 252570 | 7304.51 | 19.044 | -7.9814 | 128.374 |
| 5 | 18712 | 252380 | 7304.74 | 19.044 | -7.9503 | 128.430 |
| 5 | 18713 | 252189 | 7304.98 | 19.043 | -7.9193 | 128.485 |
| 5 | 18714 | 251999 | 7305.21 | 19.044 | -7.8882 | 128.541 |
| 5 | 18715 | 251809 | 7305.45 | 19.047 | -7.8572 | 128.596 |
| 5 | 18716 | 251618 | 7305.69 | 19.052 | -7.8261 | 128.652 |
| 5 | 18717 | 251428 | 7305.92 | 19.064 | -7.7950 | 128.708 |
| 5 | 18718 | 251237 | 7306.16 | 19.073 | -7.7639 | 128.763 |
| 5 | 18719 | 251046 | 7306.40 | 19.087 | -7.7328 | 128.819 |
| 5 | 18720 | 250856 | 7306.63 | 19.102 | -7.7017 | 128.874 |
| 5 | 18721 | 250665 | 7306.87 | 19.123 | -7.6706 | 128.930 |
| 5 | 18722 | 250474 | 7307.11 | 19.165 | -7.6395 | 128.985 |
| 5 | 18723 | 250283 | 7307.35 | 19.209 | -7.6083 | 129.041 |
| 5 | 18724 | 250092 | 7307.58 | 19.252 | -7.5772 | 129.096 |
| 5 | 18725 | 249901 | 7307.82 | 19.293 | -7.5460 | 129.152 |
| 5 | 18726 | 249710 | 7308.06 | 19.350 | -7.5148 | 129.207 |
| 5 | 18727 | 249519 | 7308.30 | 19.402 | -7.4837 | 129.263 |
| 5 | 18728 | 249328 | 7308.54 | 19.456 | -7.4525 | 129.318 |
| 5 | 18729 | 249136 | 7308.77 | 19.513 | -7.4213 | 129.374 |
| 5 | 18730 | 248945 | 7309.01 | 19.570 | -7.3900 | 129.429 |
| 5 | 18731 | 248753 | 7309.25 | 19.627 | -7.3588 | 129.485 |
| 5 | 18732 | 248562 | 7309.49 | 19.695 | -7.3276 | 129.540 |
| 5 | 18733 | 248370 | 7309.72 | 19.757 | -7.2964 | 129.596 |
| 5 | 18734 | 248178 | 7309.96 | 19.826 | -7.2651 | 129.651 |
| 5 | 18735 | 247987 | 7310.20 | 19.894 | -7.2338 | 129.707 |
| 5 | 18736 | 247795 | 7310.44 | 19.958 | -7.2026 | 129.762 |
| 5 | 18737 | 247603 | 7310.68 | 20.036 | -7.1713 | 129.818 |
| 5 | 18738 | 247411 | 7310.92 | 20.115 | -7.1400 | 129.873 |
| 5 | 18739 | 247219 | 7311.15 | 20.183 | -7.1087 | 129.929 |
| 5 | 18740 | 247027 | 7311.39 | 20.279 | -7.0774 | 129.984 |
| 5 | 18741 | 246835 | 7311.63 | 20.352 | -7.0461 | 130.039 |
| 5 | 18742 | 246643 | 7311.87 | 20.437 | -7.0147 | 130.095 |
| 5 | 18743 | 246450 | 7312.11 | 20.522 | -6.9834 | 130.150 |
| 5 | 18744 | 246258 | 7312.35 | 20.620 | -6.9521 | 130.206 |
| 5 | 18745 | 246066 | 7312.59 | 20.720 | -6.9207 | 130.261 |
| 5 | 18746 | 245873 | 7312.83 | 20.808 | -6.8893 | 130.317 |
| 5 | 18747 | 245681 | 7313.07 | 20.914 | -6.8580 | 130.372 |
| 5 | 18748 | 245488 | 7313.31 | 21.012 | -6.8266 | 130.427 |
| 5 | 18749 | 245295 | 7313.55 | 21.107 | -6.7952 | 130.483 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | BET STS 35 | | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|--------------|-----------------|------------------|
| | | | VELOCITY METERS/SEC | ALPHA DEG | | |
| 5 | 18650 | 264022 | 7290.31 | 17.097 | -9.8532 | 124.972 |
| 5 | 18651 | 263836 | 7290.54 | 17.169 | -9.8229 | 125.028 |
| 5 | 18652 | 263651 | 7290.77 | 17.235 | -9.7925 | 125.084 |
| 5 | 18653 | 263466 | 7291.00 | 17.323 | -9.7622 | 125.140 |
| 5 | 18654 | 263280 | 7291.23 | 17.401 | -9.7318 | 125.196 |
| 5 | 18655 | 263094 | 7291.46 | 17.479 | -9.7014 | 125.252 |
| 5 | 18656 | 262909 | 7291.69 | 17.562 | -9.6710 | 125.308 |
| 5 | 18657 | 262723 | 7291.92 | 17.644 | -9.6406 | 125.363 |
| 5 | 18658 | 262537 | 7292.15 | 17.710 | -9.6102 | 125.419 |
| 5 | 18659 | 262351 | 7292.38 | 17.771 | -9.5797 | 125.475 |
| 5 | 18660 | 262165 | 7292.61 | 17.832 | -9.5493 | 125.531 |
| 5 | 18661 | 261979 | 7292.84 | 17.902 | -9.5188 | 125.587 |
| 5 | 18662 | 261793 | 7293.07 | 17.971 | -9.4884 | 125.643 |
| 5 | 18663 | 261607 | 7293.31 | 18.040 | -9.4579 | 125.699 |
| 5 | 18664 | 261420 | 7293.54 | 18.109 | -9.4274 | 125.755 |
| 5 | 18665 | 261234 | 7293.77 | 18.183 | -9.3969 | 125.811 |
| 5 | 18666 | 261047 | 7294.00 | 18.255 | -9.3664 | 125.867 |
| 5 | 18667 | 260861 | 7294.23 | 18.332 | -9.3359 | 125.922 |
| 5 | 18668 | 260674 | 7294.46 | 18.416 | -9.3053 | 125.978 |
| 5 | 18669 | 260487 | 7294.70 | 18.491 | -9.2748 | 126.034 |
| 5 | 18670 | 260300 | 7294.93 | 18.581 | -9.2442 | 126.090 |
| 5 | 18671 | 260113 | 7295.16 | 18.664 | -9.2136 | 126.146 |
| 5 | 18672 | 259926 | 7295.39 | 18.736 | -9.1830 | 126.202 |
| 5 | 18673 | 259739 | 7295.62 | 18.805 | -9.1524 | 126.258 |
| 5 | 18674 | 259552 | 7295.85 | 18.862 | -9.1218 | 126.313 |
| 5 | 18675 | 259365 | 7296.09 | 18.929 | -9.0912 | 126.369 |
| 5 | 18676 | 259177 | 7296.32 | 18.997 | -9.0606 | 126.425 |
| 5 | 18677 | 258990 | 7296.55 | 19.064 | -9.0299 | 126.481 |
| 5 | 18678 | 258802 | 7296.78 | 19.134 | -8.9993 | 126.537 |
| 5 | 18679 | 258615 | 7297.02 | 19.218 | -8.9686 | 126.592 |
| 5 | 18680 | 258427 | 7297.25 | 19.287 | -8.9379 | 126.648 |
| 5 | 18681 | 258239 | 7297.48 | 19.353 | -8.9072 | 126.704 |
| 5 | 18682 | 258051 | 7297.72 | 19.436 | -8.8765 | 126.760 |
| 5 | 18683 | 257863 | 7297.95 | 19.521 | -8.8458 | 126.815 |
| 5 | 18684 | 257675 | 7298.18 | 19.608 | -8.8151 | 126.871 |
| 5 | 18685 | 257487 | 7298.42 | 19.695 | -8.7844 | 126.927 |
| 5 | 18686 | 257299 | 7298.65 | 19.785 | -8.7536 | 126.983 |
| 5 | 18687 | 257111 | 7298.87 | 19.790 | -8.7228 | 127.038 |
| 5 | 18688 | 256923 | 7299.10 | 19.739 | -8.6921 | 127.094 |
| 5 | 18689 | 256734 | 7299.33 | 19.690 | -8.6613 | 127.150 |
| 5 | 18690 | 256546 | 7299.57 | 19.641 | -8.6305 | 127.206 |
| 5 | 18691 | 256357 | 7299.80 | 19.584 | -8.5997 | 127.261 |
| 5 | 18692 | 256168 | 7300.04 | 19.539 | -8.5689 | 127.317 |
| 5 | 18693 | 255980 | 7300.27 | 19.491 | -8.5381 | 127.373 |
| 5 | 18694 | 255791 | 7300.50 | 19.450 | -8.5072 | 127.428 |
| 5 | 18695 | 255602 | 7300.74 | 19.408 | -8.4764 | 127.484 |
| 5 | 18696 | 255413 | 7300.97 | 19.359 | -8.4455 | 127.540 |
| 5 | 18697 | 255224 | 7301.21 | 19.328 | -8.4147 | 127.595 |
| 5 | 18698 | 255035 | 7301.44 | 19.290 | -8.3838 | 127.651 |
| 5 | 18699 | 254846 | 7301.68 | 19.261 | -8.3529 | 127.707 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18600 | 273165 | 7278.98 | 10.942 | -11.3533 | 122.162 |
| 5 | 18601 | 272985 | 7279.21 | 11.026 | -11.3237 | 122.218 |
| 5 | 18602 | 272804 | 7279.43 | 11.121 | -11.2940 | 122.275 |
| 5 | 18603 | 272624 | 7279.65 | 11.212 | -11.2643 | 122.331 |
| 5 | 18604 | 272443 | 7279.88 | 11.298 | -11.2346 | 122.388 |
| 5 | 18605 | 272262 | 7280.10 | 11.394 | -11.2048 | 122.444 |
| 5 | 18606 | 272081 | 7280.33 | 11.487 | -11.1751 | 122.500 |
| 5 | 18607 | 271900 | 7280.55 | 11.580 | -11.1453 | 122.557 |
| 5 | 18608 | 271719 | 7280.78 | 11.673 | -11.1156 | 122.613 |
| 5 | 18609 | 271537 | 7281.00 | 11.769 | -11.0858 | 122.669 |
| 5 | 18610 | 271356 | 7281.23 | 11.872 | -11.0560 | 122.726 |
| 5 | 18611 | 271174 | 7281.45 | 11.970 | -11.0262 | 122.782 |
| 5 | 18612 | 270993 | 7281.68 | 12.065 | -10.9964 | 122.838 |
| 5 | 18613 | 270811 | 7281.90 | 12.167 | -10.9665 | 122.895 |
| 5 | 18614 | 270629 | 7282.13 | 12.277 | -10.9367 | 122.951 |
| 5 | 18615 | 270447 | 7282.35 | 12.381 | -10.9068 | 123.007 |
| 5 | 18616 | 270265 | 7282.58 | 12.502 | -10.8769 | 123.063 |
| 5 | 18617 | 270083 | 7282.80 | 12.617 | -10.8470 | 123.120 |
| 5 | 18618 | 269901 | 7283.03 | 12.728 | -10.8171 | 123.176 |
| 5 | 18619 | 269719 | 7283.26 | 12.854 | -10.7872 | 123.232 |
| 5 | 18620 | 269536 | 7283.48 | 12.973 | -10.7573 | 123.288 |
| 5 | 18621 | 269354 | 7283.71 | 13.101 | -10.7273 | 123.345 |
| 5 | 18622 | 269171 | 7283.93 | 13.227 | -10.6974 | 123.401 |
| 5 | 18623 | 268989 | 7284.16 | 13.355 | -10.6674 | 123.457 |
| 5 | 18624 | 268806 | 7284.39 | 13.491 | -10.6374 | 123.513 |
| 5 | 18625 | 268623 | 7284.61 | 13.615 | -10.6074 | 123.570 |
| 5 | 18626 | 268440 | 7284.84 | 13.753 | -10.5774 | 123.626 |
| 5 | 18627 | 268257 | 7285.07 | 13.890 | -10.5474 | 123.682 |
| 5 | 18628 | 268074 | 7285.30 | 14.041 | -10.5173 | 123.738 |
| 5 | 18629 | 267891 | 7285.52 | 14.184 | -10.4873 | 123.794 |
| 5 | 18630 | 267707 | 7285.75 | 14.321 | -10.4572 | 123.850 |
| 5 | 18631 | 267524 | 7285.98 | 14.482 | -10.4271 | 123.907 |
| 5 | 18632 | 267340 | 7286.21 | 14.632 | -10.3970 | 123.963 |
| 5 | 18633 | 267157 | 7286.43 | 14.780 | -10.3669 | 124.019 |
| 5 | 18634 | 266973 | 7286.66 | 14.938 | -10.3368 | 124.075 |
| 5 | 18635 | 266789 | 7286.89 | 15.093 | -10.3067 | 124.131 |
| 5 | 18636 | 266605 | 7287.12 | 15.245 | -10.2765 | 124.187 |
| 5 | 18637 | 266422 | 7287.35 | 15.410 | -10.2464 | 124.243 |
| 5 | 18638 | 266237 | 7287.57 | 15.579 | -10.2162 | 124.299 |
| 5 | 18639 | 266053 | 7287.80 | 15.733 | -10.1860 | 124.355 |
| 5 | 18640 | 265869 | 7288.03 | 15.905 | -10.1558 | 124.411 |
| 5 | 18641 | 265685 | 7288.26 | 16.069 | -10.1256 | 124.468 |
| 5 | 18642 | 265500 | 7288.49 | 16.240 | -10.0954 | 124.524 |
| 5 | 18643 | 265316 | 7288.72 | 16.394 | -10.0652 | 124.580 |
| 5 | 18644 | 265131 | 7288.94 | 16.524 | -10.0349 | 124.636 |
| 5 | 18645 | 264946 | 7289.17 | 16.649 | -10.0047 | 124.692 |
| 5 | 18646 | 264762 | 7289.40 | 16.752 | -9.9744 | 124.748 |
| 5 | 18647 | 264577 | 7289.63 | 16.842 | -9.9441 | 124.804 |
| 5 | 18648 | 264392 | 7289.86 | 16.952 | -9.9138 | 124.860 |
| 5 | 18649 | 264207 | 7290.08 | 17.028 | -9.8835 | 124.916 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18550 | 282056 | 7267.97 | 7.667 | -12.8183 | 119.329 |
| 5 | 18551 | 281881 | 7268.19 | 7.710 | -12.7894 | 119.386 |
| 5 | 18552 | 281706 | 7268.41 | 7.755 | -12.7604 | 119.443 |
| 5 | 18553 | 281531 | 7268.62 | 7.800 | -12.7315 | 119.500 |
| 5 | 18554 | 281355 | 7268.84 | 7.848 | -12.7025 | 119.557 |
| 5 | 18555 | 281179 | 7269.06 | 7.894 | -12.6735 | 119.614 |
| 5 | 18556 | 281004 | 7269.27 | 7.946 | -12.6445 | 119.670 |
| 5 | 18557 | 280828 | 7269.49 | 7.991 | -12.6155 | 119.727 |
| 5 | 18558 | 280652 | 7269.71 | 8.041 | -12.5864 | 119.784 |
| 5 | 18559 | 280476 | 7269.93 | 8.092 | -12.5574 | 119.841 |
| 5 | 18560 | 280300 | 7270.15 | 8.144 | -12.5283 | 119.898 |
| 5 | 18561 | 280124 | 7270.36 | 8.199 | -12.4992 | 119.955 |
| 5 | 18562 | 279947 | 7270.58 | 8.253 | -12.4701 | 120.011 |
| 5 | 18563 | 279771 | 7270.80 | 8.304 | -12.4410 | 120.068 |
| 5 | 18564 | 279594 | 7271.02 | 8.359 | -12.4119 | 120.125 |
| 5 | 18565 | 279417 | 7271.24 | 8.415 | -12.3827 | 120.182 |
| 5 | 18566 | 279241 | 7271.46 | 8.469 | -12.3536 | 120.238 |
| 5 | 18567 | 279064 | 7271.68 | 8.529 | -12.3244 | 120.295 |
| 5 | 18568 | 278887 | 7271.90 | 8.584 | -12.2952 | 120.352 |
| 5 | 18569 | 278710 | 7272.12 | 8.638 | -12.2660 | 120.409 |
| 5 | 18570 | 278532 | 7272.34 | 8.701 | -12.2368 | 120.465 |
| 5 | 18571 | 278355 | 7272.55 | 8.761 | -12.2076 | 120.522 |
| 5 | 18572 | 278177 | 7272.77 | 8.826 | -12.1783 | 120.579 |
| 5 | 18573 | 278000 | 7272.99 | 8.888 | -12.1490 | 120.635 |
| 5 | 18574 | 277822 | 7273.21 | 8.955 | -12.1198 | 120.692 |
| 5 | 18575 | 277644 | 7273.43 | 9.020 | -12.0905 | 120.749 |
| 5 | 18576 | 277467 | 7273.65 | 9.086 | -12.0612 | 120.805 |
| 5 | 18577 | 277289 | 7273.88 | 9.153 | -12.0318 | 120.862 |
| 5 | 18578 | 277110 | 7274.10 | 9.216 | -12.0025 | 120.919 |
| 5 | 18579 | 276932 | 7274.32 | 9.287 | -11.9731 | 120.975 |
| 5 | 18580 | 276754 | 7274.54 | 9.352 | -11.9438 | 121.032 |
| 5 | 18581 | 276575 | 7274.76 | 9.420 | -11.9144 | 121.088 |
| 5 | 18582 | 276397 | 7274.98 | 9.492 | -11.8850 | 121.145 |
| 5 | 18583 | 276218 | 7275.20 | 9.564 | -11.8556 | 121.202 |
| 5 | 18584 | 276039 | 7275.42 | 9.636 | -11.8261 | 121.258 |
| 5 | 18585 | 275861 | 7275.65 | 9.712 | -11.7967 | 121.315 |
| 5 | 18586 | 275682 | 7275.86 | 9.793 | -11.7672 | 121.371 |
| 5 | 18587 | 275503 | 7276.09 | 9.862 | -11.7378 | 121.428 |
| 5 | 18588 | 275323 | 7276.31 | 9.948 | -11.7083 | 121.484 |
| 5 | 18589 | 275144 | 7276.53 | 10.024 | -11.6788 | 121.541 |
| 5 | 18590 | 274965 | 7276.75 | 10.104 | -11.6493 | 121.597 |
| 5 | 18591 | 274785 | 7276.98 | 10.184 | -11.6197 | 121.654 |
| 5 | 18592 | 274606 | 7277.20 | 10.259 | -11.5902 | 121.710 |
| 5 | 18593 | 274426 | 7277.42 | 10.346 | -11.5606 | 121.767 |
| 5 | 18594 | 274246 | 7277.64 | 10.422 | -11.5311 | 121.823 |
| 5 | 18595 | 274066 | 7277.87 | 10.512 | -11.5015 | 121.880 |
| 5 | 18596 | 273886 | 7278.09 | 10.594 | -11.4719 | 121.936 |
| 5 | 18597 | 273706 | 7278.31 | 10.684 | -11.4423 | 121.993 |
| 5 | 18598 | 273526 | 7278.54 | 10.769 | -11.4126 | 122.049 |
| 5 | 18599 | 273346 | 7278.76 | 10.853 | -11.3830 | 122.106 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18500 | 290663 | 7257.32 | 6.542 | -14.2440 | 116.470 |
| 5 | 18501 | 290494 | 7257.53 | 6.544 | -14.2159 | 116.527 |
| 5 | 18502 | 290325 | 7257.74 | 6.547 | -14.1878 | 116.585 |
| 5 | 18503 | 290156 | 7257.95 | 6.549 | -14.1596 | 116.642 |
| 5 | 18504 | 289986 | 7258.16 | 6.551 | -14.1315 | 116.699 |
| 5 | 18505 | 289816 | 7258.37 | 6.556 | -14.1033 | 116.757 |
| 5 | 18506 | 289647 | 7258.58 | 6.562 | -14.0751 | 116.814 |
| 5 | 18507 | 289477 | 7258.79 | 6.570 | -14.0469 | 116.872 |
| 5 | 18508 | 289307 | 7259.00 | 6.580 | -14.0187 | 116.929 |
| 5 | 18509 | 289136 | 7259.21 | 6.588 | -13.9904 | 116.986 |
| 5 | 18510 | 288966 | 7259.42 | 6.596 | -13.9622 | 117.044 |
| 5 | 18511 | 288796 | 7259.63 | 6.600 | -13.9339 | 117.101 |
| 5 | 18512 | 288625 | 7259.84 | 6.613 | -13.9056 | 117.159 |
| 5 | 18513 | 288455 | 7260.05 | 6.631 | -13.8773 | 117.216 |
| 5 | 18514 | 288284 | 7260.26 | 6.643 | -13.8490 | 117.273 |
| 5 | 18515 | 288113 | 7260.47 | 6.657 | -13.8206 | 117.331 |
| 5 | 18516 | 287942 | 7260.69 | 6.671 | -13.7923 | 117.388 |
| 5 | 18517 | 287771 | 7260.90 | 6.686 | -13.7639 | 117.445 |
| 5 | 18518 | 287599 | 7261.11 | 6.704 | -13.7355 | 117.502 |
| 5 | 18519 | 287428 | 7261.32 | 6.720 | -13.7071 | 117.560 |
| 5 | 18520 | 287257 | 7261.53 | 6.740 | -13.6787 | 117.617 |
| 5 | 18521 | 287085 | 7261.75 | 6.755 | -13.6502 | 117.674 |
| 5 | 18522 | 286913 | 7261.96 | 6.776 | -13.6218 | 117.731 |
| 5 | 18523 | 286741 | 7262.17 | 6.790 | -13.5933 | 117.789 |
| 5 | 18524 | 286569 | 7262.39 | 6.811 | -13.5648 | 117.846 |
| 5 | 18525 | 286397 | 7262.60 | 6.832 | -13.5363 | 117.903 |
| 5 | 18526 | 286225 | 7262.81 | 6.856 | -13.5078 | 117.960 |
| 5 | 18527 | 286053 | 7263.02 | 6.880 | -13.4792 | 118.017 |
| 5 | 18528 | 285880 | 7263.24 | 6.906 | -13.4507 | 118.074 |
| 5 | 18529 | 285708 | 7263.45 | 6.931 | -13.4221 | 118.132 |
| 5 | 18530 | 285535 | 7263.67 | 6.958 | -13.3935 | 118.189 |
| 5 | 18531 | 285362 | 7263.88 | 6.986 | -13.3649 | 118.246 |
| 5 | 18532 | 285189 | 7264.09 | 7.014 | -13.3363 | 118.303 |
| 5 | 18533 | 285016 | 7264.31 | 7.045 | -13.3076 | 118.360 |
| 5 | 18534 | 284843 | 7264.52 | 7.070 | -13.2790 | 118.417 |
| 5 | 18535 | 284670 | 7264.74 | 7.100 | -13.2503 | 118.474 |
| 5 | 18536 | 284496 | 7264.95 | 7.132 | -13.2216 | 118.531 |
| 5 | 18537 | 284323 | 7265.17 | 7.165 | -13.1929 | 118.588 |
| 5 | 18538 | 284149 | 7265.38 | 7.198 | -13.1642 | 118.645 |
| 5 | 18539 | 283975 | 7265.60 | 7.233 | -13.1355 | 118.703 |
| 5 | 18540 | 283801 | 7265.81 | 7.267 | -13.1067 | 118.760 |
| 5 | 18541 | 283627 | 7266.03 | 7.302 | -13.0779 | 118.817 |
| 5 | 18542 | 283453 | 7266.24 | 7.339 | -13.0492 | 118.874 |
| 5 | 18543 | 283279 | 7266.46 | 7.379 | -13.0204 | 118.931 |
| 5 | 18544 | 283105 | 7266.67 | 7.415 | -12.9915 | 118.988 |
| 5 | 18545 | 282930 | 7266.89 | 7.455 | -12.9627 | 119.045 |
| 5 | 18546 | 282756 | 7267.11 | 7.497 | -12.9339 | 119.101 |
| 5 | 18547 | 282581 | 7267.32 | 7.537 | -12.9050 | 119.158 |
| 5 | 18548 | 282406 | 7267.54 | 7.579 | -12.8761 | 119.215 |
| 5 | 18549 | 282231 | 7267.75 | 7.620 | -12.8472 | 119.272 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18450 | 298957 | 7247.07 | 3.204 | -15.6263 | 113.580 |
| 5 | 18451 | 298794 | 7247.27 | 3.270 | -15.5991 | 113.638 |
| 5 | 18452 | 298632 | 7247.47 | 3.337 | -15.5719 | 113.696 |
| 5 | 18453 | 298469 | 7247.67 | 3.407 | -15.5446 | 113.754 |
| 5 | 18454 | 298306 | 7247.87 | 3.478 | -15.5174 | 113.812 |
| 5 | 18455 | 298143 | 7248.07 | 3.549 | -15.4901 | 113.870 |
| 5 | 18456 | 297979 | 7248.28 | 3.620 | -15.4628 | 113.928 |
| 5 | 18457 | 297816 | 7248.48 | 3.690 | -15.4355 | 113.986 |
| 5 | 18458 | 297652 | 7248.68 | 3.761 | -15.4082 | 114.044 |
| 5 | 18459 | 297489 | 7248.88 | 3.836 | -15.3809 | 114.102 |
| 5 | 18460 | 297325 | 7249.09 | 3.909 | -15.3535 | 114.160 |
| 5 | 18461 | 297161 | 7249.29 | 3.987 | -15.3261 | 114.218 |
| 5 | 18462 | 296997 | 7249.49 | 4.062 | -15.2987 | 114.276 |
| 5 | 18463 | 296832 | 7249.69 | 4.142 | -15.2713 | 114.334 |
| 5 | 18464 | 296668 | 7249.90 | 4.220 | -15.2438 | 114.392 |
| 5 | 18465 | 296504 | 7250.10 | 4.298 | -15.2164 | 114.450 |
| 5 | 18466 | 296339 | 7250.30 | 4.379 | -15.1889 | 114.508 |
| 5 | 18467 | 296174 | 7250.51 | 4.459 | -15.1614 | 114.566 |
| 5 | 18468 | 296009 | 7250.71 | 4.541 | -15.1339 | 114.624 |
| 5 | 18469 | 295844 | 7250.92 | 4.619 | -15.1064 | 114.682 |
| 5 | 18470 | 295679 | 7251.12 | 4.680 | -15.0788 | 114.739 |
| 5 | 18471 | 295514 | 7251.32 | 4.735 | -15.0513 | 114.797 |
| 5 | 18472 | 295348 | 7251.53 | 4.791 | -15.0237 | 114.855 |
| 5 | 18473 | 295183 | 7251.73 | 4.848 | -14.9961 | 114.913 |
| 5 | 18474 | 295017 | 7251.94 | 4.905 | -14.9685 | 114.971 |
| 5 | 18475 | 294851 | 7252.14 | 4.962 | -14.9408 | 115.029 |
| 5 | 18476 | 294685 | 7252.35 | 5.018 | -14.9132 | 115.086 |
| 5 | 18477 | 294519 | 7252.55 | 5.080 | -14.8855 | 115.144 |
| 5 | 18478 | 294353 | 7252.76 | 5.141 | -14.8578 | 115.202 |
| 5 | 18479 | 294187 | 7252.97 | 5.203 | -14.8301 | 115.260 |
| 5 | 18480 | 294020 | 7253.17 | 5.267 | -14.8023 | 115.317 |
| 5 | 18481 | 293853 | 7253.38 | 5.333 | -14.7746 | 115.375 |
| 5 | 18482 | 293687 | 7253.58 | 5.394 | -14.7468 | 115.433 |
| 5 | 18483 | 293520 | 7253.79 | 5.462 | -14.7190 | 115.491 |
| 5 | 18484 | 293353 | 7254.00 | 5.523 | -14.6912 | 115.548 |
| 5 | 18485 | 293186 | 7254.20 | 5.590 | -14.6634 | 115.606 |
| 5 | 18486 | 293018 | 7254.41 | 5.663 | -14.6356 | 115.664 |
| 5 | 18487 | 292851 | 7254.62 | 5.735 | -14.6077 | 115.721 |
| 5 | 18488 | 292684 | 7254.82 | 5.812 | -14.5798 | 115.779 |
| 5 | 18489 | 292516 | 7255.03 | 5.893 | -14.5520 | 115.837 |
| 5 | 18490 | 292348 | 7255.24 | 5.971 | -14.5240 | 115.894 |
| 5 | 18491 | 292180 | 7255.45 | 6.054 | -14.4961 | 115.952 |
| 5 | 18492 | 292012 | 7255.66 | 6.135 | -14.4682 | 116.009 |
| 5 | 18493 | 291844 | 7255.86 | 6.222 | -14.4402 | 116.067 |
| 5 | 18494 | 291676 | 7256.07 | 6.302 | -14.4122 | 116.124 |
| 5 | 18495 | 291507 | 7256.28 | 6.387 | -14.3842 | 116.182 |
| 5 | 18496 | 291339 | 7256.49 | 6.477 | -14.3562 | 116.240 |
| 5 | 18497 | 291170 | 7256.69 | 6.532 | -14.3282 | 116.297 |
| 5 | 18498 | 291001 | 7256.90 | 6.542 | -14.3001 | 116.355 |
| 5 | 18499 | 290832 | 7257.11 | 6.543 | -14.2721 | 116.412 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18400 | 306908 | 7237.23 | -1.998 | -16.9611 | 110.656 |
| 5 | 18401 | 306753 | 7237.43 | -1.678 | -16.9349 | 110.715 |
| 5 | 18402 | 306597 | 7237.62 | -1.355 | -16.9086 | 110.774 |
| 5 | 18403 | 306441 | 7237.81 | -1.032 | -16.8824 | 110.833 |
| 5 | 18404 | 306285 | 7238.01 | -.710 | -16.8561 | 110.891 |
| 5 | 18405 | 306129 | 7238.20 | -.384 | -16.8298 | 110.950 |
| 5 | 18406 | 305973 | 7238.39 | -.063 | -16.8035 | 111.009 |
| 5 | 18407 | 305817 | 7238.58 | .265 | -16.7772 | 111.068 |
| 5 | 18408 | 305660 | 7238.78 | .471 | -16.7509 | 111.126 |
| 5 | 18409 | 305503 | 7238.98 | .592 | -16.7245 | 111.185 |
| 5 | 18410 | 305347 | 7239.17 | .708 | -16.6981 | 111.244 |
| 5 | 18411 | 305190 | 7239.37 | .802 | -16.6717 | 111.302 |
| 5 | 18412 | 305033 | 7239.56 | .888 | -16.6453 | 111.361 |
| 5 | 18413 | 304875 | 7239.75 | .975 | -16.6188 | 111.420 |
| 5 | 18414 | 304718 | 7239.95 | 1.048 | -16.5923 | 111.478 |
| 5 | 18415 | 304560 | 7240.14 | 1.114 | -16.5659 | 111.537 |
| 5 | 18416 | 304403 | 7240.34 | 1.177 | -16.5394 | 111.596 |
| 5 | 18417 | 304245 | 7240.53 | 1.240 | -16.5128 | 111.654 |
| 5 | 18418 | 304087 | 7240.73 | 1.306 | -16.4863 | 111.713 |
| 5 | 18419 | 303929 | 7240.92 | 1.373 | -16.4597 | 111.771 |
| 5 | 18420 | 303771 | 7241.12 | 1.441 | -16.4331 | 111.830 |
| 5 | 18421 | 303612 | 7241.32 | 1.514 | -16.4065 | 111.888 |
| 5 | 18422 | 303454 | 7241.51 | 1.585 | -16.3799 | 111.947 |
| 5 | 18423 | 303295 | 7241.71 | 1.656 | -16.3532 | 112.005 |
| 5 | 18424 | 303136 | 7241.90 | 1.732 | -16.3266 | 112.064 |
| 5 | 18425 | 302977 | 7242.10 | 1.795 | -16.2999 | 112.122 |
| 5 | 18426 | 302818 | 7242.30 | 1.844 | -16.2732 | 112.181 |
| 5 | 18427 | 302659 | 7242.49 | 1.891 | -16.2464 | 112.239 |
| 5 | 18428 | 302499 | 7242.69 | 1.936 | -16.2197 | 112.298 |
| 5 | 18429 | 302340 | 7242.89 | 1.985 | -16.1929 | 112.356 |
| 5 | 18430 | 302180 | 7243.08 | 2.034 | -16.1661 | 112.415 |
| 5 | 18431 | 302020 | 7243.28 | 2.083 | -16.1393 | 112.473 |
| 5 | 18432 | 301860 | 7243.48 | 2.136 | -16.1125 | 112.531 |
| 5 | 18433 | 301700 | 7243.68 | 2.188 | -16.0856 | 112.590 |
| 5 | 18434 | 301540 | 7243.88 | 2.240 | -16.0588 | 112.648 |
| 5 | 18435 | 301380 | 7244.07 | 2.294 | -16.0319 | 112.706 |
| 5 | 18436 | 301219 | 7244.27 | 2.347 | -16.0050 | 112.765 |
| 5 | 18437 | 301058 | 7244.47 | 2.406 | -15.9781 | 112.823 |
| 5 | 18438 | 300897 | 7244.67 | 2.462 | -15.9511 | 112.881 |
| 5 | 18439 | 300737 | 7244.87 | 2.520 | -15.9242 | 112.940 |
| 5 | 18440 | 300575 | 7245.07 | 2.580 | -15.8972 | 112.998 |
| 5 | 18441 | 300414 | 7245.27 | 2.640 | -15.8702 | 113.056 |
| 5 | 18442 | 300253 | 7245.47 | 2.698 | -15.8431 | 113.114 |
| 5 | 18443 | 300091 | 7245.67 | 2.758 | -15.8161 | 113.172 |
| 5 | 18444 | 299930 | 7245.87 | 2.818 | -15.7890 | 113.231 |
| 5 | 18445 | 299768 | 7246.07 | 2.879 | -15.7620 | 113.289 |
| 5 | 18446 | 299606 | 7246.27 | 2.942 | -15.7349 | 113.347 |
| 5 | 18447 | 299444 | 7246.47 | 3.003 | -15.7077 | 113.405 |
| 5 | 18448 | 299282 | 7246.67 | 3.067 | -15.6806 | 113.463 |
| 5 | 18449 | 299119 | 7246.87 | 3.135 | -15.6535 | 113.522 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18350 | 314490 | 7227.90 | -10.627 | -18.2442 | 107.697 |
| 5 | 18351 | 314342 | 7228.08 | -10.559 | -18.2191 | 107.756 |
| 5 | 18352 | 314194 | 7228.26 | -10.512 | -18.1939 | 107.816 |
| 5 | 18353 | 314046 | 7228.45 | -10.480 | -18.1687 | 107.875 |
| 5 | 18354 | 313898 | 7228.63 | -10.475 | -18.1435 | 107.935 |
| 5 | 18355 | 313749 | 7228.81 | -10.491 | -18.1183 | 107.994 |
| 5 | 18356 | 313601 | 7228.99 | -10.524 | -18.0931 | 108.054 |
| 5 | 18357 | 313452 | 7229.17 | -10.550 | -18.0678 | 108.113 |
| 5 | 18358 | 313303 | 7229.35 | -10.398 | -18.0425 | 108.173 |
| 5 | 18359 | 313154 | 7229.53 | -10.252 | -18.0172 | 108.232 |
| 5 | 18360 | 313004 | 7229.71 | -10.121 | -17.9919 | 108.292 |
| 5 | 18361 | 312855 | 7229.89 | -10.001 | -17.9665 | 108.351 |
| 5 | 18362 | 312705 | 7230.07 | -9.919 | -17.9412 | 108.410 |
| 5 | 18363 | 312555 | 7230.26 | -9.839 | -17.9158 | 108.470 |
| 5 | 18364 | 312406 | 7230.44 | -9.783 | -17.8904 | 108.529 |
| 5 | 18365 | 312255 | 7230.63 | -9.744 | -17.8649 | 108.588 |
| 5 | 18366 | 312105 | 7230.81 | -9.708 | -17.8395 | 108.648 |
| 5 | 18367 | 311955 | 7231.00 | -9.670 | -17.8140 | 108.707 |
| 5 | 18368 | 311804 | 7231.18 | -9.632 | -17.7885 | 108.766 |
| 5 | 18369 | 311654 | 7231.37 | -9.594 | -17.7629 | 108.826 |
| 5 | 18370 | 311503 | 7231.55 | -9.550 | -17.7374 | 108.885 |
| 5 | 18371 | 311352 | 7231.74 | -9.507 | -17.7118 | 108.944 |
| 5 | 18372 | 311201 | 7231.93 | -9.462 | -17.6862 | 109.004 |
| 5 | 18373 | 311049 | 7232.11 | -9.413 | -17.6606 | 109.063 |
| 5 | 18374 | 310898 | 7232.30 | -9.367 | -17.6350 | 109.122 |
| 5 | 18375 | 310746 | 7232.49 | -9.317 | -17.6093 | 109.181 |
| 5 | 18376 | 310594 | 7232.67 | -9.290 | -17.5837 | 109.240 |
| 5 | 18377 | 310443 | 7232.86 | -9.153 | -17.5580 | 109.300 |
| 5 | 18378 | 310290 | 7233.05 | -8.869 | -17.5322 | 109.359 |
| 5 | 18379 | 310138 | 7233.24 | -8.564 | -17.5065 | 109.418 |
| 5 | 18380 | 309986 | 7233.43 | -8.258 | -17.4807 | 109.477 |
| 5 | 18381 | 309834 | 7233.61 | -7.951 | -17.4550 | 109.536 |
| 5 | 18382 | 309681 | 7233.80 | -7.641 | -17.4291 | 109.595 |
| 5 | 18383 | 309528 | 7233.99 | -7.330 | -17.4033 | 109.654 |
| 5 | 18384 | 309375 | 7234.18 | -7.023 | -17.3775 | 109.713 |
| 5 | 18385 | 309222 | 7234.37 | -6.715 | -17.3516 | 109.772 |
| 5 | 18386 | 309069 | 7234.56 | -6.404 | -17.3257 | 109.831 |
| 5 | 18387 | 308916 | 7234.75 | -6.095 | -17.2998 | 109.890 |
| 5 | 18388 | 308762 | 7234.94 | -5.777 | -17.2739 | 109.949 |
| 5 | 18389 | 308608 | 7235.13 | -5.467 | -17.2479 | 110.008 |
| 5 | 18390 | 308455 | 7235.32 | -5.156 | -17.2219 | 110.067 |
| 5 | 18391 | 308301 | 7235.51 | -4.846 | -17.1960 | 110.126 |
| 5 | 18392 | 308146 | 7235.70 | -4.530 | -17.1699 | 110.185 |
| 5 | 18393 | 307992 | 7235.89 | -4.211 | -17.1439 | 110.244 |
| 5 | 18394 | 307838 | 7236.08 | -3.898 | -17.1178 | 110.303 |
| 5 | 18395 | 307683 | 7236.27 | -3.583 | -17.0918 | 110.362 |
| 5 | 18396 | 307528 | 7236.47 | -3.270 | -17.0657 | 110.421 |
| 5 | 18397 | 307374 | 7236.66 | -2.952 | -17.0395 | 110.480 |
| 5 | 18398 | 307218 | 7236.85 | -2.632 | -17.0134 | 110.539 |
| 5 | 18399 | 307063 | 7237.04 | -2.317 | -16.9872 | 110.597 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18300 | 321680 | 7219.10 | -7.078 | -19.4715 | 104.698 |
| 5 | 18301 | 321540 | 7219.27 | -7.035 | -19.4476 | 104.759 |
| 5 | 18302 | 321400 | 7219.44 | -6.978 | -19.4236 | 104.819 |
| 5 | 18303 | 321260 | 7219.61 | -6.929 | -19.3995 | 104.879 |
| 5 | 18304 | 321120 | 7219.79 | -6.874 | -19.3755 | 104.940 |
| 5 | 18305 | 320979 | 7219.96 | -6.816 | -19.3514 | 105.000 |
| 5 | 18306 | 320839 | 7220.13 | -6.764 | -19.3273 | 105.060 |
| 5 | 18307 | 320698 | 7220.31 | -6.704 | -19.3032 | 105.120 |
| 5 | 18308 | 320557 | 7220.48 | -6.656 | -19.2791 | 105.181 |
| 5 | 18309 | 320416 | 7220.66 | -6.594 | -19.2549 | 105.241 |
| 5 | 18310 | 320275 | 7220.83 | -6.553 | -19.2307 | 105.301 |
| 5 | 18311 | 320133 | 7221.00 | -6.538 | -19.2065 | 105.361 |
| 5 | 18312 | 319992 | 7221.17 | -6.532 | -19.1823 | 105.421 |
| 5 | 18313 | 319850 | 7221.35 | -6.548 | -19.1580 | 105.482 |
| 5 | 18314 | 319708 | 7221.52 | -6.591 | -19.1337 | 105.542 |
| 5 | 18315 | 319566 | 7221.70 | -6.644 | -19.1094 | 105.602 |
| 5 | 18316 | 319424 | 7221.87 | -6.722 | -19.0851 | 105.662 |
| 5 | 18317 | 319281 | 7222.04 | -6.817 | -19.0608 | 105.722 |
| 5 | 18318 | 319139 | 7222.22 | -6.936 | -19.0364 | 105.782 |
| 5 | 18319 | 318996 | 7222.40 | -7.067 | -19.0120 | 105.842 |
| 5 | 18320 | 318853 | 7222.57 | -7.222 | -18.9876 | 105.902 |
| 5 | 18321 | 318710 | 7222.75 | -7.400 | -18.9631 | 105.962 |
| 5 | 18322 | 318567 | 7222.92 | -7.595 | -18.9386 | 106.022 |
| 5 | 18323 | 318423 | 7223.10 | -7.805 | -18.9141 | 106.082 |
| 5 | 18324 | 318280 | 7223.27 | -8.035 | -18.8896 | 106.142 |
| 5 | 18325 | 318136 | 7223.45 | -8.284 | -18.8651 | 106.202 |
| 5 | 18326 | 317992 | 7223.62 | -8.550 | -18.8405 | 106.262 |
| 5 | 18327 | 317848 | 7223.80 | -8.840 | -18.8159 | 106.322 |
| 5 | 18328 | 317704 | 7223.98 | -9.148 | -18.7913 | 106.382 |
| 5 | 18329 | 317559 | 7224.16 | -9.471 | -18.7667 | 106.442 |
| 5 | 18330 | 317415 | 7224.33 | -9.823 | -18.7421 | 106.502 |
| 5 | 18331 | 317270 | 7224.51 | -10.187 | -18.7174 | 106.562 |
| 5 | 18332 | 317125 | 7224.69 | -10.576 | -18.6927 | 106.622 |
| 5 | 18333 | 316980 | 7224.87 | -10.980 | -18.6680 | 106.682 |
| 5 | 18334 | 316835 | 7225.03 | -11.406 | -18.6432 | 106.741 |
| 5 | 18335 | 316689 | 7225.20 | -11.548 | -18.6184 | 106.801 |
| 5 | 18336 | 316544 | 7225.38 | -11.541 | -18.5936 | 106.861 |
| 5 | 18337 | 316398 | 7225.56 | -11.540 | -18.5688 | 106.921 |
| 5 | 18338 | 316252 | 7225.74 | -11.531 | -18.5440 | 106.981 |
| 5 | 18339 | 316106 | 7225.92 | -11.527 | -18.5191 | 107.040 |
| 5 | 18340 | 315960 | 7226.10 | -11.528 | -18.4943 | 107.100 |
| 5 | 18341 | 315814 | 7226.28 | -11.515 | -18.4693 | 107.160 |
| 5 | 18342 | 315668 | 7226.46 | -11.498 | -18.4444 | 107.220 |
| 5 | 18343 | 315521 | 7226.64 | -11.513 | -18.4195 | 107.279 |
| 5 | 18344 | 315374 | 7226.81 | -11.406 | -18.3945 | 107.339 |
| 5 | 18345 | 315227 | 7226.99 | -11.225 | -18.3695 | 107.399 |
| 5 | 18346 | 315080 | 7227.17 | -11.073 | -18.3445 | 107.458 |
| 5 | 18347 | 314933 | 7227.35 | -10.939 | -18.3194 | 107.518 |
| 5 | 18348 | 314785 | 7227.53 | -10.821 | -18.2944 | 107.577 |
| 5 | 18349 | 314638 | 7227.71 | -10.713 | -18.2693 | 107.637 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18250 | 328448 | 7210.76 | -11.063 | -20.6390 | 101.659 |
| 5 | 18251 | 328317 | 7210.92 | -10.988 | -20.6162 | 101.720 |
| 5 | 18252 | 328186 | 7211.08 | -10.916 | -20.5935 | 101.781 |
| 5 | 18253 | 328055 | 7211.24 | -10.844 | -20.5707 | 101.843 |
| 5 | 18254 | 327923 | 7211.41 | -10.769 | -20.5479 | 101.904 |
| 5 | 18255 | 327791 | 7211.57 | -10.697 | -20.5250 | 101.965 |
| 5 | 18256 | 327659 | 7211.73 | -10.622 | -20.5022 | 102.026 |
| 5 | 18257 | 327527 | 7211.89 | -10.548 | -20.4793 | 102.087 |
| 5 | 18258 | 327395 | 7212.06 | -10.469 | -20.4564 | 102.148 |
| 5 | 18259 | 327262 | 7212.22 | -10.393 | -20.4334 | 102.209 |
| 5 | 18260 | 327130 | 7212.38 | -10.312 | -20.4105 | 102.270 |
| 5 | 18261 | 326997 | 7212.55 | -10.236 | -20.3875 | 102.331 |
| 5 | 18262 | 326864 | 7212.71 | -10.155 | -20.3645 | 102.392 |
| 5 | 18263 | 326730 | 7212.87 | -10.069 | -20.3414 | 102.453 |
| 5 | 18264 | 326597 | 7213.04 | -9.990 | -20.3184 | 102.514 |
| 5 | 18265 | 326463 | 7213.20 | -9.914 | -20.2953 | 102.575 |
| 5 | 18266 | 326330 | 7213.37 | -9.818 | -20.2722 | 102.636 |
| 5 | 18267 | 326196 | 7213.53 | -9.727 | -20.2490 | 102.697 |
| 5 | 18268 | 326062 | 7213.70 | -9.645 | -20.2259 | 102.758 |
| 5 | 18269 | 325927 | 7213.86 | -9.552 | -20.2027 | 102.819 |
| 5 | 18270 | 325793 | 7214.03 | -9.469 | -20.1795 | 102.880 |
| 5 | 18271 | 325658 | 7214.19 | -9.374 | -20.1562 | 102.941 |
| 5 | 18272 | 325524 | 7214.36 | -9.281 | -20.1329 | 103.001 |
| 5 | 18273 | 325389 | 7214.53 | -9.191 | -20.1097 | 103.062 |
| 5 | 18274 | 325254 | 7214.69 | -9.103 | -20.0863 | 103.123 |
| 5 | 18275 | 325118 | 7214.86 | -9.011 | -20.0630 | 103.184 |
| 5 | 18276 | 324983 | 7215.03 | -8.910 | -20.0396 | 103.245 |
| 5 | 18277 | 324847 | 7215.19 | -8.821 | -20.0162 | 103.305 |
| 5 | 18278 | 324711 | 7215.36 | -8.724 | -19.9928 | 103.366 |
| 5 | 18279 | 324575 | 7215.53 | -8.627 | -19.9694 | 103.427 |
| 5 | 18280 | 324439 | 7215.70 | -8.536 | -19.9459 | 103.488 |
| 5 | 18281 | 324303 | 7215.87 | -8.435 | -19.9224 | 103.548 |
| 5 | 18282 | 324166 | 7216.03 | -8.335 | -19.8989 | 103.609 |
| 5 | 18283 | 324030 | 7216.20 | -8.236 | -19.8754 | 103.670 |
| 5 | 18284 | 323893 | 7216.37 | -8.142 | -19.8518 | 103.730 |
| 5 | 18285 | 323756 | 7216.54 | -8.036 | -19.8282 | 103.791 |
| 5 | 18286 | 323619 | 7216.71 | -7.936 | -19.8046 | 103.851 |
| 5 | 18287 | 323481 | 7216.88 | -7.834 | -19.7810 | 103.912 |
| 5 | 18288 | 323344 | 7217.05 | -7.729 | -19.7573 | 103.973 |
| 5 | 18289 | 323206 | 7217.22 | -7.637 | -19.7337 | 104.033 |
| 5 | 18290 | 323068 | 7217.39 | -7.551 | -19.7099 | 104.094 |
| 5 | 18291 | 322930 | 7217.55 | -7.505 | -19.6862 | 104.154 |
| 5 | 18292 | 322792 | 7217.72 | -7.465 | -19.6625 | 104.215 |
| 5 | 18293 | 322653 | 7217.89 | -7.421 | -19.6387 | 104.275 |
| 5 | 18294 | 322515 | 7218.07 | -7.380 | -19.6149 | 104.336 |
| 5 | 18295 | 322376 | 7218.24 | -7.321 | -19.5910 | 104.396 |
| 5 | 18296 | 322237 | 7218.41 | -7.279 | -19.5672 | 104.457 |
| 5 | 18297 | 322098 | 7218.58 | -7.240 | -19.5433 | 104.517 |
| 5 | 18298 | 321959 | 7218.75 | -7.184 | -19.5194 | 104.577 |
| 5 | 18299 | 321819 | 7218.92 | -7.137 | -19.4955 | 104.638 |

| DAY | TIME(SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18200 | 334773 | 7202.97 | -13.492 | -21.7424 | 98.578 |
| 5 | 18201 | 334651 | 7203.12 | -13.463 | -21.7210 | 98.640 |
| 5 | 18202 | 334529 | 7203.27 | -13.431 | -21.6995 | 98.702 |
| 5 | 18203 | 334407 | 7203.42 | -13.398 | -21.6781 | 98.764 |
| 5 | 18204 | 334284 | 7203.57 | -13.367 | -21.6566 | 98.826 |
| 5 | 18205 | 334161 | 7203.72 | -13.335 | -21.6351 | 98.888 |
| 5 | 18206 | 334039 | 7203.87 | -13.300 | -21.6135 | 98.950 |
| 5 | 18207 | 333915 | 7204.02 | -13.266 | -21.5919 | 99.012 |
| 5 | 18208 | 333792 | 7204.18 | -13.227 | -21.5703 | 99.074 |
| 5 | 18209 | 333669 | 7204.33 | -13.197 | -21.5487 | 99.136 |
| 5 | 18210 | 333545 | 7204.48 | -13.157 | -21.5270 | 99.197 |
| 5 | 18211 | 333421 | 7204.63 | -13.122 | -21.5053 | 99.259 |
| 5 | 18212 | 333297 | 7204.79 | -13.082 | -21.4836 | 99.321 |
| 5 | 18213 | 333173 | 7204.94 | -13.041 | -21.4619 | 99.383 |
| 5 | 18214 | 333048 | 7205.09 | -13.000 | -21.4401 | 99.445 |
| 5 | 18215 | 332924 | 7205.25 | -12.956 | -21.4183 | 99.507 |
| 5 | 18216 | 332799 | 7205.40 | -12.914 | -21.3965 | 99.569 |
| 5 | 18217 | 332674 | 7205.55 | -12.876 | -21.3747 | 99.630 |
| 5 | 18218 | 332549 | 7205.71 | -12.830 | -21.3528 | 99.692 |
| 5 | 18219 | 332424 | 7205.86 | -12.784 | -21.3309 | 99.754 |
| 5 | 18220 | 332298 | 7206.02 | -12.740 | -21.3090 | 99.815 |
| 5 | 18221 | 332172 | 7206.17 | -12.697 | -21.2870 | 99.877 |
| 5 | 18222 | 332046 | 7206.33 | -12.647 | -21.2650 | 99.939 |
| 5 | 18223 | 331920 | 7206.48 | -12.600 | -21.2430 | 100.000 |
| 5 | 18224 | 331794 | 7206.64 | -12.552 | -21.2210 | 100.062 |
| 5 | 18225 | 331668 | 7206.79 | -12.506 | -21.1989 | 100.124 |
| 5 | 18226 | 331541 | 7206.95 | -12.459 | -21.1769 | 100.185 |
| 5 | 18227 | 331414 | 7207.10 | -12.398 | -21.1547 | 100.247 |
| 5 | 18228 | 331287 | 7207.26 | -12.352 | -21.1326 | 100.309 |
| 5 | 18229 | 331160 | 7207.42 | -12.300 | -21.1104 | 100.370 |
| 5 | 18230 | 331033 | 7207.57 | -12.251 | -21.0883 | 100.432 |
| 5 | 18231 | 330905 | 7207.73 | -12.194 | -21.0660 | 100.493 |
| 5 | 18232 | 330778 | 7207.89 | -12.140 | -21.0438 | 100.555 |
| 5 | 18233 | 330650 | 7208.05 | -12.087 | -21.0215 | 100.616 |
| 5 | 18234 | 330522 | 7208.20 | -12.034 | -20.9992 | 100.678 |
| 5 | 18235 | 330394 | 7208.36 | -11.980 | -20.9769 | 100.739 |
| 5 | 18236 | 330265 | 7208.52 | -11.923 | -20.9546 | 100.801 |
| 5 | 18237 | 330137 | 7208.68 | -11.866 | -20.9322 | 100.862 |
| 5 | 18238 | 330008 | 7208.84 | -11.807 | -20.9098 | 100.923 |
| 5 | 18239 | 329879 | 7209.00 | -11.749 | -20.8874 | 100.985 |
| 5 | 18240 | 329750 | 7209.16 | -11.690 | -20.8649 | 101.046 |
| 5 | 18241 | 329620 | 7209.31 | -11.627 | -20.8424 | 101.108 |
| 5 | 18242 | 329491 | 7209.47 | -11.568 | -20.8199 | 101.169 |
| 5 | 18243 | 329361 | 7209.63 | -11.507 | -20.7974 | 101.230 |
| 5 | 18244 | 329231 | 7209.79 | -11.446 | -20.7748 | 101.292 |
| 5 | 18245 | 329101 | 7209.96 | -11.382 | -20.7523 | 101.353 |
| 5 | 18246 | 328971 | 7210.12 | -11.317 | -20.7297 | 101.414 |
| 5 | 18247 | 328841 | 7210.28 | -11.256 | -20.7070 | 101.475 |
| 5 | 18248 | 328710 | 7210.44 | -11.192 | -20.6844 | 101.537 |
| 5 | 18249 | 328579 | 7210.60 | -11.126 | -20.6617 | 101.598 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18150 | 340632 | 7195.75 | -19.539 | -22.7778 | 95.454 |
| 5 | 18151 | 340519 | 7195.89 | -19.428 | -22.7577 | 95.516 |
| 5 | 18152 | 340407 | 7196.03 | -19.312 | -22.7377 | 95.579 |
| 5 | 18153 | 340294 | 7196.17 | -19.195 | -22.7176 | 95.642 |
| 5 | 18154 | 340181 | 7196.31 | -19.078 | -22.6975 | 95.705 |
| 5 | 18155 | 340068 | 7196.45 | -18.958 | -22.6774 | 95.768 |
| 5 | 18156 | 339954 | 7196.58 | -18.842 | -22.6572 | 95.831 |
| 5 | 18157 | 339840 | 7196.72 | -18.724 | -22.6371 | 95.894 |
| 5 | 18158 | 339727 | 7196.86 | -18.604 | -22.6168 | 95.956 |
| 5 | 18159 | 339613 | 7197.00 | -18.482 | -22.5966 | 96.019 |
| 5 | 18160 | 339498 | 7197.15 | -18.361 | -22.5763 | 96.082 |
| 5 | 18161 | 339384 | 7197.29 | -18.240 | -22.5560 | 96.145 |
| 5 | 18162 | 339269 | 7197.43 | -18.117 | -22.5357 | 96.207 |
| 5 | 18163 | 339155 | 7197.57 | -17.994 | -22.5153 | 96.270 |
| 5 | 18164 | 339040 | 7197.71 | -17.867 | -22.4950 | 96.333 |
| 5 | 18165 | 338924 | 7197.85 | -17.743 | -22.4745 | 96.395 |
| 5 | 18166 | 338809 | 7197.99 | -17.615 | -22.4541 | 96.458 |
| 5 | 18167 | 338693 | 7198.14 | -17.487 | -22.4336 | 96.521 |
| 5 | 18168 | 338578 | 7198.28 | -17.361 | -22.4131 | 96.583 |
| 5 | 18169 | 338462 | 7198.42 | -17.235 | -22.3926 | 96.646 |
| 5 | 18170 | 338346 | 7198.56 | -17.104 | -22.3720 | 96.708 |
| 5 | 18171 | 338229 | 7198.71 | -16.976 | -22.3515 | 96.771 |
| 5 | 18172 | 338113 | 7198.85 | -16.841 | -22.3308 | 96.834 |
| 5 | 18173 | 337996 | 7198.99 | -16.714 | -22.3102 | 96.896 |
| 5 | 18174 | 337879 | 7199.14 | -16.581 | -22.2895 | 96.959 |
| 5 | 18175 | 337762 | 7199.28 | -16.449 | -22.2688 | 97.021 |
| 5 | 18176 | 337645 | 7199.43 | -16.316 | -22.2481 | 97.084 |
| 5 | 18177 | 337527 | 7199.57 | -16.183 | -22.2274 | 97.146 |
| 5 | 18178 | 337410 | 7199.72 | -16.049 | -22.2066 | 97.208 |
| 5 | 18179 | 337292 | 7199.86 | -15.909 | -22.1858 | 97.271 |
| 5 | 18180 | 337174 | 7200.01 | -15.779 | -22.1649 | 97.333 |
| 5 | 18181 | 337056 | 7200.15 | -15.640 | -22.1441 | 97.396 |
| 5 | 18182 | 336937 | 7200.30 | -15.502 | -22.1232 | 97.458 |
| 5 | 18183 | 336819 | 7200.44 | -15.363 | -22.1023 | 97.520 |
| 5 | 18184 | 336700 | 7200.59 | -15.227 | -22.0813 | 97.583 |
| 5 | 18185 | 336581 | 7200.74 | -15.086 | -22.0603 | 97.645 |
| 5 | 18186 | 336462 | 7200.88 | -14.947 | -22.0393 | 97.707 |
| 5 | 18187 | 336342 | 7201.03 | -14.805 | -22.0183 | 97.770 |
| 5 | 18188 | 336223 | 7201.18 | -14.662 | -21.9972 | 97.832 |
| 5 | 18189 | 336103 | 7201.33 | -14.521 | -21.9762 | 97.894 |
| 5 | 18190 | 335983 | 7201.47 | -14.379 | -21.9550 | 97.956 |
| 5 | 18191 | 335863 | 7201.62 | -14.234 | -21.9339 | 98.019 |
| 5 | 18192 | 335743 | 7201.77 | -14.090 | -21.9127 | 98.081 |
| 5 | 18193 | 335622 | 7201.92 | -13.947 | -21.8915 | 98.143 |
| 5 | 18194 | 335502 | 7202.07 | -13.838 | -21.8703 | 98.205 |
| 5 | 18195 | 335381 | 7202.22 | -13.757 | -21.8491 | 98.267 |
| 5 | 18196 | 335260 | 7202.37 | -13.665 | -21.8278 | 98.330 |
| 5 | 18197 | 335138 | 7202.52 | -13.584 | -21.8065 | 98.392 |
| 5 | 18198 | 335017 | 7202.67 | -13.553 | -21.7851 | 98.454 |
| 5 | 18199 | 334895 | 7202.82 | -13.522 | -21.7638 | 98.516 |

| DAY | TIME (SEC) GMT | ALTITUDE METERS | VELOCITY METERS/SEC | BET STS 35 ALPHA DEG | LATITUDE DEG | LONGITUDE DEG |
|-----|-------------------|--------------------|------------------------|----------------------------|-----------------|------------------|
| 5 | 18100 | 346005 | 7189.15 | -23.494 | -23.7411 | 92.286 |
| 5 | 18101 | 345902 | 7189.27 | -23.451 | -23.7225 | 92.350 |
| 5 | 18102 | 345799 | 7189.40 | -23.404 | -23.7040 | 92.414 |
| 5 | 18103 | 345696 | 7189.52 | -23.353 | -23.6854 | 92.477 |
| 5 | 18104 | 345593 | 7189.65 | -23.304 | -23.6667 | 92.541 |
| 5 | 18105 | 345490 | 7189.78 | -23.256 | -23.6481 | 92.605 |
| 5 | 18106 | 345386 | 7189.91 | -23.207 | -23.6294 | 92.668 |
| 5 | 18107 | 345282 | 7190.03 | -23.160 | -23.6107 | 92.732 |
| 5 | 18108 | 345178 | 7190.16 | -23.106 | -23.5919 | 92.796 |
| 5 | 18109 | 345074 | 7190.29 | -23.052 | -23.5732 | 92.859 |
| 5 | 18110 | 344970 | 7190.42 | -23.001 | -23.5543 | 92.923 |
| 5 | 18111 | 344865 | 7190.55 | -22.946 | -23.5355 | 92.987 |
| 5 | 18112 | 344760 | 7190.68 | -22.890 | -23.5166 | 93.050 |
| 5 | 18113 | 344655 | 7190.80 | -22.834 | -23.4977 | 93.114 |
| 5 | 18114 | 344550 | 7190.93 | -22.785 | -23.4788 | 93.177 |
| 5 | 18115 | 344445 | 7191.06 | -22.727 | -23.4599 | 93.241 |
| 5 | 18116 | 344339 | 7191.19 | -22.670 | -23.4409 | 93.304 |
| 5 | 18117 | 344234 | 7191.32 | -22.613 | -23.4219 | 93.368 |
| 5 | 18118 | 344128 | 7191.45 | -22.549 | -23.4028 | 93.431 |
| 5 | 18119 | 344021 | 7191.58 | -22.494 | -23.3837 | 93.495 |
| 5 | 18120 | 343915 | 7191.72 | -22.434 | -23.3646 | 93.558 |
| 5 | 18121 | 343808 | 7191.85 | -22.375 | -23.3455 | 93.622 |
| 5 | 18122 | 343702 | 7191.98 | -22.311 | -23.3263 | 93.685 |
| 5 | 18123 | 343595 | 7192.11 | -22.248 | -23.3071 | 93.748 |
| 5 | 18124 | 343487 | 7192.24 | -22.187 | -23.2879 | 93.812 |
| 5 | 18125 | 343380 | 7192.37 | -22.126 | -23.2687 | 93.875 |
| 5 | 18126 | 343273 | 7192.50 | -22.049 | -23.2494 | 93.939 |
| 5 | 18127 | 343165 | 7192.64 | -21.948 | -23.2301 | 94.002 |
| 5 | 18128 | 343057 | 7192.77 | -21.853 | -23.2107 | 94.065 |
| 5 | 18129 | 342949 | 7192.90 | -21.757 | -23.1913 | 94.129 |
| 5 | 18130 | 342840 | 7193.04 | -21.658 | -23.1719 | 94.192 |
| 5 | 18131 | 342732 | 7193.17 | -21.564 | -23.1525 | 94.255 |
| 5 | 18132 | 342623 | 7193.30 | -21.464 | -23.1330 | 94.318 |
| 5 | 18133 | 342514 | 7193.44 | -21.362 | -23.1136 | 94.382 |
| 5 | 18134 | 342405 | 7193.57 | -21.265 | -23.0940 | 94.445 |
| 5 | 18135 | 342295 | 7193.70 | -21.162 | -23.0745 | 94.508 |
| 5 | 18136 | 342186 | 7193.84 | -21.064 | -23.0549 | 94.571 |
| 5 | 18137 | 342076 | 7193.97 | -20.964 | -23.0353 | 94.634 |
| 5 | 18138 | 341966 | 7194.11 | -20.857 | -23.0157 | 94.697 |
| 5 | 18139 | 341856 | 7194.25 | -20.752 | -22.9960 | 94.760 |
| 5 | 18140 | 341746 | 7194.38 | -20.646 | -22.9763 | 94.823 |
| 5 | 18141 | 341635 | 7194.52 | -20.541 | -22.9566 | 94.887 |
| 5 | 18142 | 341525 | 7194.65 | -20.435 | -22.9368 | 94.950 |
| 5 | 18143 | 341414 | 7194.79 | -20.325 | -22.9170 | 95.013 |
| 5 | 18144 | 341303 | 7194.93 | -20.219 | -22.8972 | 95.076 |
| 5 | 18145 | 341191 | 7195.06 | -20.105 | -22.8774 | 95.139 |
| 5 | 18146 | 341080 | 7195.20 | -19.993 | -22.8575 | 95.202 |
| 5 | 18147 | 340968 | 7195.34 | -19.880 | -22.8376 | 95.265 |
| 5 | 18148 | 340856 | 7195.47 | -19.772 | -22.8177 | 95.328 |
| 5 | 18149 | 340744 | 7195.61 | -19.658 | -22.7977 | 95.391 |

**SUMS FINAL REPORT
CONTRACT NAS1-17399**

**ATTACHMENT B-PART III
CALIBRATION DATA FROM SUMS**

After STS 40 flight, the SUMS was returned to the University of Texas at Dallas and calibrated. Tests were made in the static mode of operation as well as the dynamic mode of operation. This data is necessary to further reduce the STS 35 data and is included as follows:

- 1.0 SUMS CALIBRATION DATA, NITROGEN(N₂), OXYGEN (O₂), CARBON DIOXIDE (CO₂)
- 1.1 PRINTOUT OF PEAKS DATA N₂/O₂ MIXTURE
- 1.2 PLOT OF SPECTRA DATA N₂/O₂ MIXTURE
- 1.3 PRINTOUT OF N₂/O₂/CO₂ MIXTURE
- 1.4 PLOT OF SPECTRA DATA N₂/O₂/CO₂ MIXTURE
- 1.5 PRINTOUT OF STATIC CALIBRATION PROGRAM RESULTS
- 1.6 PRINTOUT OF PEAKS FROM DYNAMIC CALIBRATION
- 1.7 PLOTS OF PRESSURE FROM DYNAMIC CALIBRATION AND CURVE FIT DATA

1.0 SUMS Calibration Data, Nitrogen (N_2), Oxygen (O_2), Carbon Dioxide (CO_2)

1.1 Printout of Peaks Data N_2/O_2 Mixture

BKG RANGE CLOSED
DATA FROM BKG82991
AVERAGE PRESSURE IS

13:21:44 29 Aug 1991

| | -9.594E-06 ENG UNITS | | | | DIT DATA |
|-----------------------------|-------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.29 | 15.22 | 15.22 | 15.22 | 195 |
| -15 VOLTS | -15.41 | -15.41 | -15.41 | -15.41 | 131 |
| ION PUMP VOLTAGE | 1882.35 | 1882.35 | 1882.35 | 1882.35 | 96 |
| ION SOURCE TEMP DEG F | 115.00 | 115.00 | 115.00 | 115.00 | 90 |
| PRE AMP TEMP DEG F | 77.03 | 77.03 | 77.03 | 77.03 | 154 |
| +5 VOLTS | 4.78 | 4.78 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.39 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 91.04 | 90.30 | 91.04 | 91.04 | 122 |
| ELECTRON ACC VOLTAGE | 72.94 | 72.94 | 72.55 | 72.94 | 186 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.36E-14 |
| AVERAGE M/E 2 | CURRENT | 3.41E-12 |
| AVERAGE M/E 1 | CURRENT | 5.81E-14 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 7.71E-13 |
| 40 ----- | 7.75E-14 |
| 32 ----- | 2.91E-14 |
| 30 ----- | 4.26E-14 |
| 28 ----- | 3.78E-12 |
| 22 ----- | 2.52E-14 |
| 20 ----- | 2.33E-14 |
| 18 ----- | 6.70E-13 |
| 16 ----- | 2.29E-13 |
| 14 ----- | 6.20E-14 |
| 12 ----- | 7.17E-14 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

BKG AFTER CAL
DATA FROM NO891 14
AVERAGE PRESSURE IS

13:51:55 26 Aug 1991

| | | | | | |
|-----------------------------|------------|---------|---------|---------|----------|
| | -3.721E-06 | | | | |
| | ENG UNITS | | | | DIT DATA |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.22 | 15.22 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1862.75 | 1862.75 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 94.71 | 94.71 | 170 |
| +5 VOLTS | 4.82 | 4.78 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.73 | 73.73 | 73.33 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.74E-14 |
| AVERAGE M/E 2 | CURRENT | 1.07E-11 |
| AVERAGE M/E 1 | CURRENT | 9.88E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 3.35E-12 |
| 40 ----- | 1.62E-12 |
| 32 ----- | 3.68E-13 |
| 30 ----- | 4.73E-13 |
| 28 ----- | 2.02E-11 |
| 22 ----- | 6.20E-14 |
| 20 ----- | 2.98E-13 |
| 18 ----- | 1.24E-11 |
| 16 ----- | 2.17E-12 |
| 14 ----- | 8.41E-13 |
| 12 ----- | 2.98E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N2 O2 RC 7.5E-3
DATA FROM NO891 13
AVERAGE PRESSURE IS

13:43:48 26 Aug 1991

| | 7.487E-03 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.22 | 15.14 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 155.00 | 157.50 | 157.50 | 157.50 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 94.71 | 169 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.73 | 73.33 | 73.73 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.62E-14 |
| AVERAGE M/E 2 | CURRENT | 1.02E-11 |
| AVERAGE M/E 1 | CURRENT | 1.17E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 4.06E-12 |
| 40 | 2.17E-12 |
| 32 | 8.33E-13 |
| 30 | 5.58E-13 |
| 28 | 2.96E-11 |
| 22 | 6.59E-14 |
| 20 | 3.88E-13 |
| 18 | 1.50E-11 |
| 16 | 2.42E-12 |
| 14 | 1.39E-12 |
| 12 | 3.41E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N2 AND O2 APPROX 7.5E-3
DATA FROM NO891_12
AVERAGE PRESSURE IS

13:35:19 26 Aug 1991

| | 7.499E-03 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1784.31 | 1784.31 | 1803.92 | 1803.92 | 91 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 93.61 | 169 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 74.12 | 74.12 | 73.73 | 74.12 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.37E-13 |
| AVERAGE M/E 2 | CURRENT | 1.55E-11 |
| AVERAGE M/E 1 | CURRENT | 1.80E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.23E-11 |
| 40 | 4.25E-11 |
| 32 | 8.72E-11 |
| 30 | 2.17E-12 |
| 28 | 9.05E-10 |
| 22 | 2.13E-13 |
| 20 | 8.31E-12 |
| 18 | 2.22E-11 |
| 16 | 9.30E-12 |
| 14 | 6.14E-11 |
| 12 | 1.05E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N2 AND O2 APPROX 5E-3
DATA FROM NO891 11
AVERAGE PRESSURE IS

13:21:07 26 Aug 1991

4.993E-03

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 152.50 | 152.50 | 152.50 | 152.50 | 105 |
| PRE AMP TEMP DEG F | 92.50 | 92.50 | 91.40 | 91.40 | 168 |
| +5 VOLTS | 4.82 | 4.82 | 4.78 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 7.51E-14 |
| AVERAGE M/E 2 | CURRENT | 1.30E-11 |
| AVERAGE M/E 1 | CURRENT | 1.27E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 6.70E-12 |
| 40 ----- | 2.42E-11 |
| 32 ----- | 4.97E-11 |
| 30 ----- | 1.64E-12 |
| 28 ----- | 6.03E-10 |
| 22 ----- | 9.69E-14 |
| 20 ----- | 4.71E-12 |
| 18 ----- | 1.48E-11 |
| 16 ----- | 6.14E-12 |
| 14 ----- | 3.96E-11 |
| 12 ----- | 7.36E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N2 AND O2 APPROX 2E-3
DATA FROM NO891_10
AVERAGE PRESSURE IS

13:13:46 26 Aug 1991

2.055E-03

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 152.50 | 152.50 | 152.50 | 152.50 | 105 |
| PRE AMP TEMP DEG F | 91.40 | 91.40 | 91.40 | 91.40 | 167 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 100.00 | 99.25 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.73 | 73.73 | 73.73 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.62E-14 |
| AVERAGE M/E 2 | CURRENT | 1.07E-11 |
| AVERAGE M/E 1 | CURRENT | 8.37E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.86E-12 |
| 40 | 9.80E-12 |
| 32 | 1.87E-11 |
| 30 | 8.50E-12 |
| 28 | 2.50E-10 |
| 22 | 5.42E-14 |
| 20 | 1.85E-12 |
| 18 | 1.00E-11 |
| 16 | 3.33E-12 |
| 14 | 1.62E-11 |
| 12 | 4.96E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N2 AND O2 APPROX 1E-3
DATA FROM NO891_9
AVERAGE PRESSURE IS

13:08:50 26 Aug 1991

| | 1.077E-03 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 152.50 | 150.00 | 152.50 | 152.50 | 105 |
| PRE AMP TEMP DEG F | 91.40 | 90.29 | 91.40 | 91.40 | 167 |
| +5 VOLTS | 4.78 | 4.78 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.33 | 73.33 | 73.33 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 7.27E-15 |
| AVERAGE M/E 2 | CURRENT | 9.73E-12 |
| AVERAGE M/E 1 | CURRENT | 7.27E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 2.98E-12 |
| 40 | 5.21E-12 |
| 32 | 9.11E-12 |
| 30 | 6.24E-13 |
| 28 | 1.39E-10 |
| 22 | 5.42E-14 |
| 20 | 9.53E-13 |
| 18 | 8.31E-12 |
| 16 | 2.42E-12 |
| 14 | 8.49E-12 |
| 12 | 3.80E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N2 AND O2 TEST APPROX 5E-4
DATA FROM NO891 8
AVERAGE PRESSURE IS

13:04:54 26 Aug 1991

| | 4.874E-04 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.22 | 15.22 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 150.00 | 150.00 | 150.00 | 150.00 | 104 |
| PRE AMP TEMP DEG F | 90.29 | 90.29 | 90.29 | 90.29 | 166 |
| +5 VOLTS | 4.78 | 4.78 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.33 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.91E-14 |
| AVERAGE M/E 2 | CURRENT | 9.49E-12 |
| AVERAGE M/E 1 | CURRENT | 6.16E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 2.42E-12 |
| 40 | 2.87E-12 |
| 32 | 3.60E-12 |
| 30 | 3.64E-13 |
| 28 | 1.51E-10 |
| 22 | 4.84E-14 |
| 20 | 5.15E-13 |
| 18 | 6.94E-12 |
| 16 | 1.87E-12 |
| 14 | 4.06E-12 |
| 12 | 2.87E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

NITROGEN AND OXYGEN TWEST
 DATA FROM NO891 7
 AVERAGE PRESSURE IS

12:58:59 26 Aug 1991

| | 2.188E-04 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1862.75 | 1862.75 | 94 |
| ION SOURCE TEMP DEG F | 150.00 | 150.00 | 150.00 | 147.50 | 104 |
| PRE AMP TEMP DEG F | 90.29 | 90.29 | 89.19 | 89.19 | 166 |
| +5 VOLTS | 4.78 | 4.78 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.33 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.16E-14 |
| AVERAGE M/E 2 | CURRENT | 8.99E-12 |
| AVERAGE M/E 1 | CURRENT | 5.83E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 2.12E-12 |
| 40 ----- | 1.50E-12 |
| 32 ----- | 1.42E-12 |
| 30 ----- | 2.64E-13 |
| 28 ----- | 3.81E-11 |
| 22 ----- | 2.71E-14 |
| 20 ----- | 2.44E-13 |
| 18 ----- | 6.26E-12 |
| 16 ----- | 1.57E-12 |
| 14 ----- | 1.95E-12 |
| 12 ----- | 2.40E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

NO AT APPROX 1 TORR
DATA FROM NO891_6
AVERAGE PRESSURE IS

14:42:28

15 Aug 1991

| | 1.100E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.06 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.18 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 95.82 | 94.71 | 94.71 | 94.71 | 171 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 87.31 | 87.31 | 88.06 | 88.06 | 117 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 8.62E-14 |
| AVERAGE M/E 2 | CURRENT | 2.10E-11 |
| AVERAGE M/E 1 | CURRENT | 3.04E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.25E-11 |
| 40 | 3.73E-11 |
| 32 | 8.52E-11 |
| 30 | 4.05E-12 |
| 28 | 8.61E-10 |
| 22 | 2.21E-13 |
| 20 | 7.29E-12 |
| 18 | 3.86E-11 |
| 16 | 1.13E-11 |
| 14 | 5.84E-11 |
| 12 | 1.21E-12 |

FOR SCAN # 1 STATUS WORD 52698 205 218

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

NO AT 7.6E-1
DATA FROM NO891 5
AVERAGE PRESSURE IS

14:31:59 15 Aug 1991

| | 7.637E-01 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 155.00 | 157.50 | 157.50 | 157.50 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 94.71 | 94.71 | 169 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 87.31 | 87.31 | 87.31 | 87.31 | 117 |
| ELECTRON ACC VOLTAGE | 72.94 | 72.94 | 72.94 | 73.33 | 186 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 4.07E-14 |
| AVERAGE M/E 2 | CURRENT | 2.29E-11 |
| AVERAGE M/E 1 | CURRENT | 2.60E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 8.31E-12 |
| 40 | 2.47E-11 |
| 32 | 5.07E-11 |
| 30 | 3.12E-12 |
| 28 | 6.35E-10 |
| 22 | 1.20E-13 |
| 20 | 4.90E-12 |
| 18 | 3.06E-11 |
| 16 | 8.80E-12 |
| 14 | 4.25E-11 |
| 12 | 1.01E-12 |

FOR SCAN # 1 STATUS WORD 52698 205 218

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

N O AT APPROX .2 TORR
DATA FROM NO891 4
AVERAGE PRESSURE IS

14:24:10 15 Aug 1991

| | 2.092E-01 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.22 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1843.14 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 93.61 | 169 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 99.25 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 87.31 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.33 | 73.33 | 73.33 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.84E-14 |
| AVERAGE M/E 2 | CURRENT | 1.55E-11 |
| AVERAGE M/E 1 | CURRENT | 1.97E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 5.08E-12 |
| 40 | 7.56E-12 |
| 32 | 1.29E-11 |
| 30 | 1.25E-12 |
| 28 | 1.94E-10 |
| 22 | 7.94E-14 |
| 20 | 1.47E-12 |
| 18 | 2.46E-11 |
| 16 | 5.18E-12 |
| 14 | 1.23E-11 |
| 12 | 5.74E-13 |

FOR SCAN # 1 STATUS WORD 52698 205 218

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

APPROX 6.5E-3 RANGE CLOSED
DATA FROM NO815 3
AVERAGE PRESSURE IS

14:04:17 15 Aug 1991

| | 6.673E-03 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.14 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 152.50 | 152.50 | 152.50 | 152.50 | 105 |
| PRE AMP TEMP DEG F | 92.50 | 92.50 | 92.50 | 92.50 | 168 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.73 | 73.33 | 73.33 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.18E-14 |
| AVERAGE M/E 2 | CURRENT | 1.48E-11 |
| AVERAGE M/E 1 | CURRENT | 2.04E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 4.34E-12 |
| 40 | 2.00E-12 |
| 32 | 8.84E-13 |
| 30 | 9.30E-13 |
| 28 | 3.86E-11 |
| 22 | 7.36E-14 |
| 20 | 3.57E-13 |
| 18 | 2.47E-11 |
| 16 | 4.46E-12 |
| 14 | 1.76E-12 |
| 12 | 5.39E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

NO APPROX 6E-3
DATA FROM NO891 2
AVERAGE PRESSURE IS

13:58:01 15 Aug 1991

6.288E-03

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 150.00 | 150.00 | 150.00 | 150.00 | 104 |
| PRE AMP TEMP DEG F | 91.40 | 91.40 | 91.40 | 91.40 | 167 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.39 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 87.31 | 87.31 | 87.31 | 87.31 | 117 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 8.04E-14 |
| AVERAGE M/E 2 | CURRENT | 2.38E-11 |
| AVERAGE M/E 1 | CURRENT | 2.78E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 9.30E-12 |
| 40 | 2.49E-11 |
| 32 | 6.73E-11 |
| 30 | 3.35E-12 |
| 28 | 7.30E-10 |
| 22 | 1.28E-13 |
| 20 | 4.87E-12 |
| 18 | 3.11E-11 |
| 16 | 1.02E-11 |
| 14 | 4.95E-11 |
| 12 | 1.38E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

BKG TEST
DATA FROM B081591
AVERAGE PRESSURE IS

13:20:00 15 Aug 1991

| | -1.958E-05 ENG UNITS | | | | DIT DATA |
|-----------------------------|-------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 135.00 | 135.00 | 135.00 | 135.00 | 98 |
| PRE AMP TEMP DEG F | 89.19 | 89.19 | 89.19 | 89.19 | 165 |
| +5 VOLTS | 4.82 | 4.78 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.39 | 6.35 | 6.35 | 6.39 | 163 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 87.31 | 87.31 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.70E-14 |
| AVERAGE M/E 2 | CURRENT | 9.95E-12 |
| AVERAGE M/E 1 | CURRENT | 6.80E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 2.43E-12 |
| 40 | 1.71E-13 |
| 32 | 1.74E-13 |
| 30 | 3.37E-13 |
| 28 | 1.45E-11 |
| 22 | 4.84E-14 |
| 20 | 3.88E-14 |
| 18 | 6.82E-12 |
| 16 | 1.94E-12 |
| 14 | 2.67E-13 |
| 12 | 3.33E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

BKG TEST
 DATA FROM B082691
 AVERAGE PRESSURE IS

12:36:42 26 Aug 1991

| | -1.938E-06 | | | | DIT DATA |
|-----------------------------|------------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.41 | -15.41 | -15.29 | -15.41 | 131 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 142.50 | 142.50 | 142.50 | 142.50 | 101 |
| PRE AMP TEMP DEG F | 86.98 | 86.98 | 88.08 | 86.98 | 163 |
| +5 VOLTS | 4.78 | 4.78 | 4.82 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.39 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.33 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.39E-15 |
| AVERAGE M/E 2 | CURRENT | 8.25E-12 |
| AVERAGE M/E 1 | CURRENT | 4.50E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.74E-12 |
| 40 | 3.64E-13 |
| 32 | 1.07E-13 |
| 30 | 1.59E-13 |
| 28 | 1.03E-11 |
| 22 | 2.13E-14 |
| 20 | 6.59E-14 |
| 18 | 4.93E-12 |
| 16 | 1.24E-12 |
| 14 | 1.98E-13 |
| 12 | 1.71E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

1.0 SUMS Calibration Data

1.2 Plot of Spectra Data N_2/O_2 Mixture

BKG RANGE CLOSED 13:21:44 29 Aug 1991

50

100

150

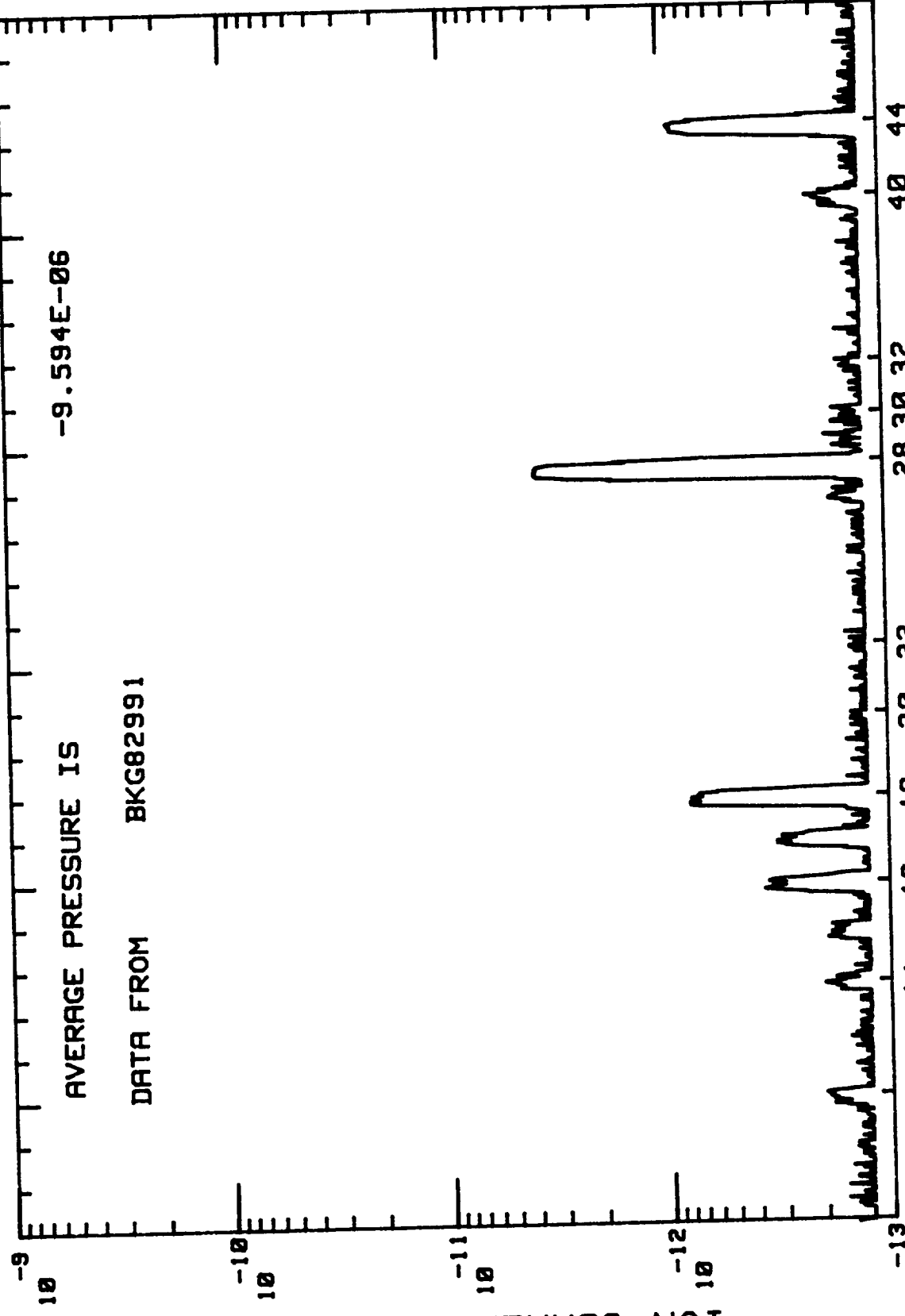
200

250

AVERAGE PRESSURE IS -9.594E-06

DATA FROM BKG82991

ION CURRENT IN AMPERE



MASS NUMBER

BKG AFTER CAL

13:51:55

26 Aug 1991

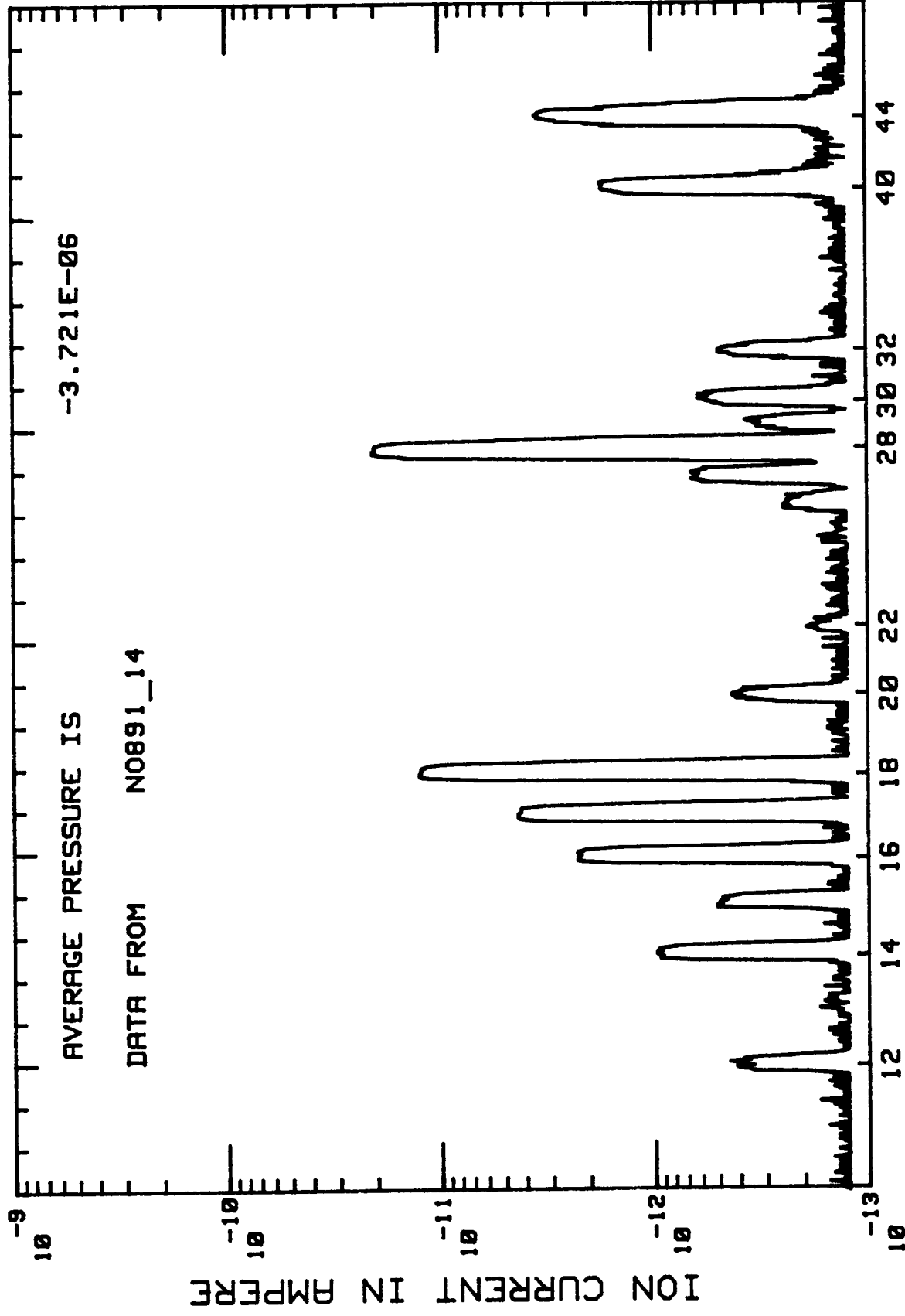
250

200

150

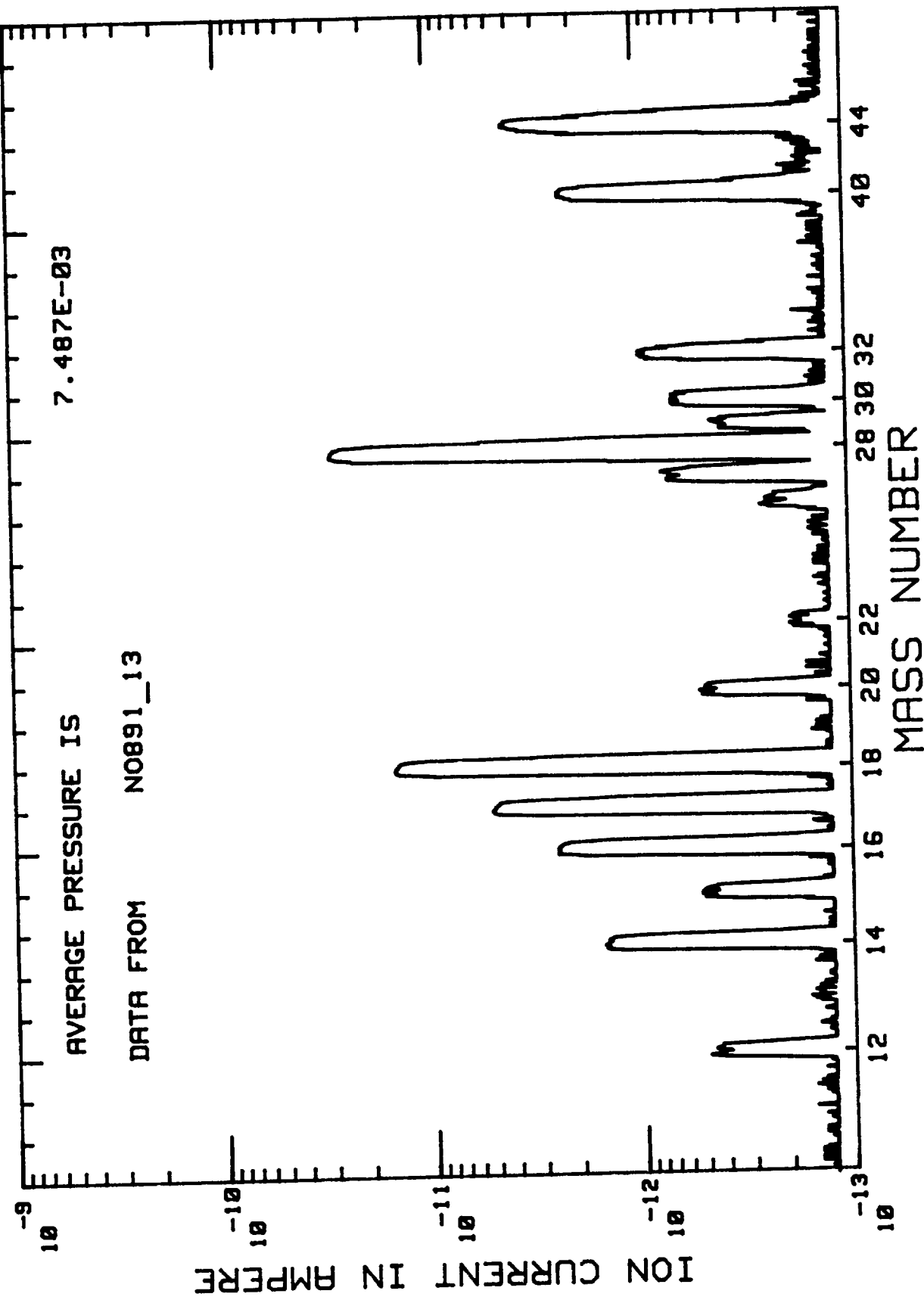
100

50

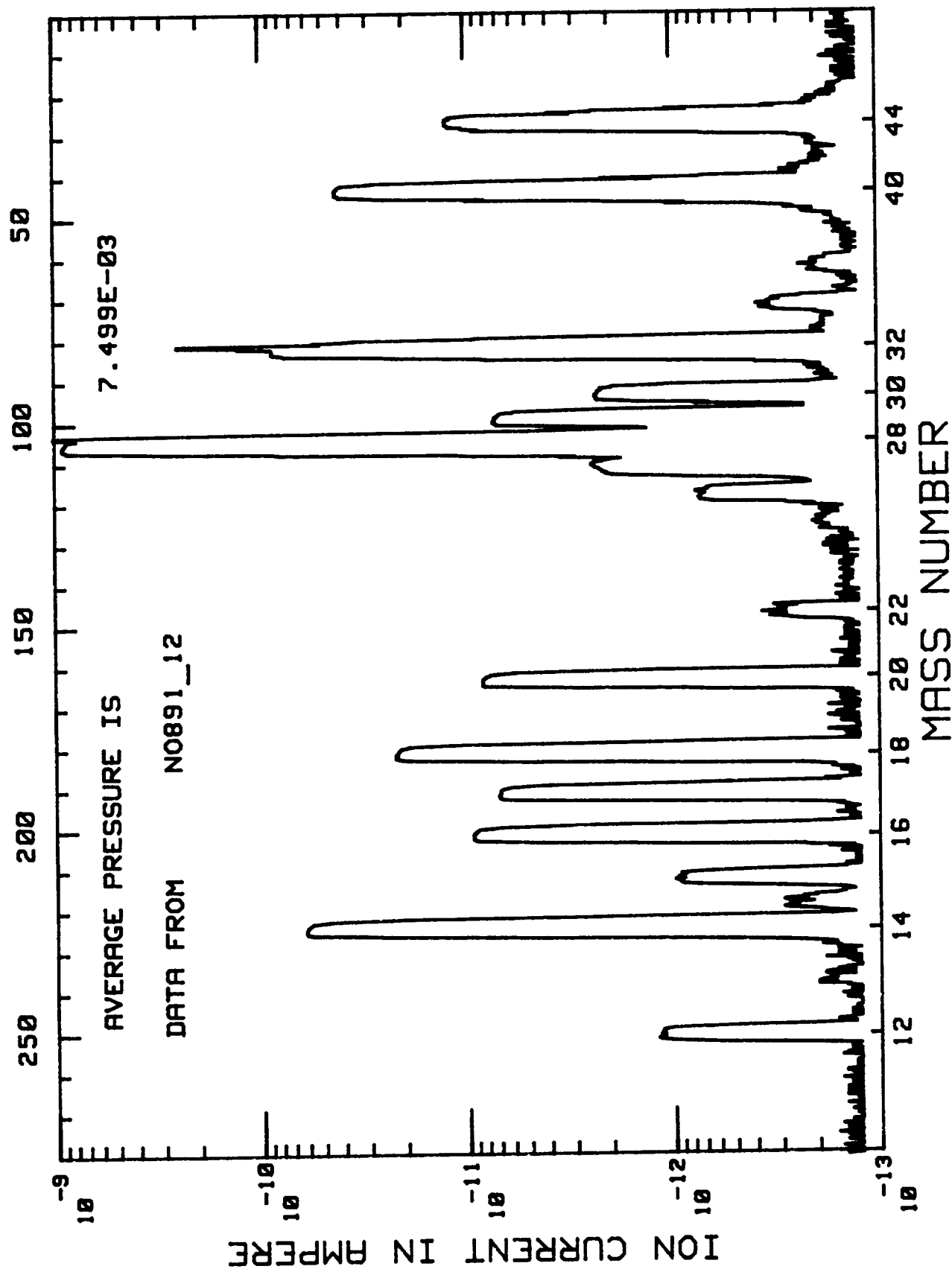


N2 O2 RC 7.5E-3 13:43:48 26 Aug 1991

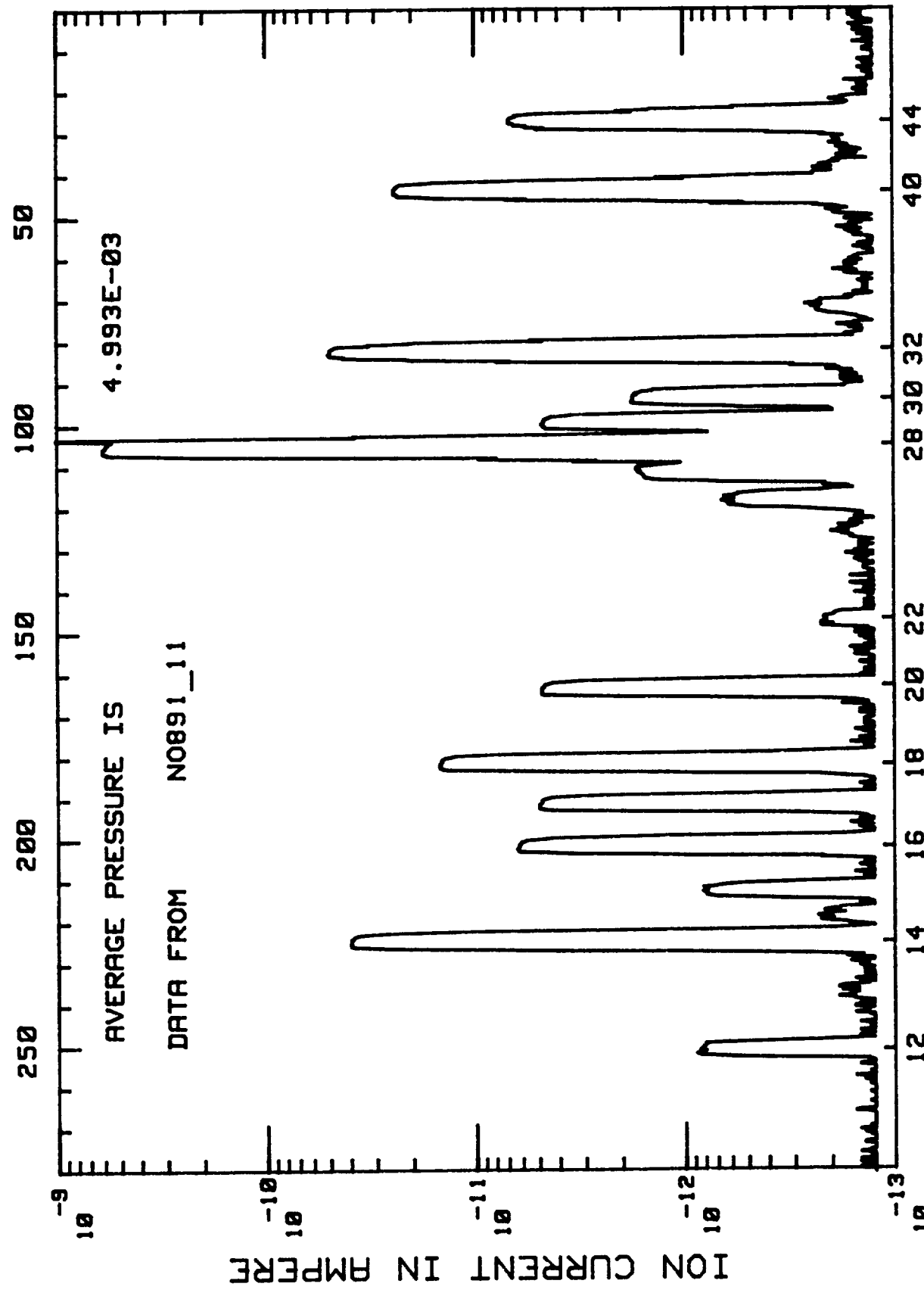
250 200 150 100 50



N2 AND O2 APPROX 7.5 13:35:19 26 Aug 1991



N2 AND O2 APPROX 5E- 13:21:07 26 Aug 1991



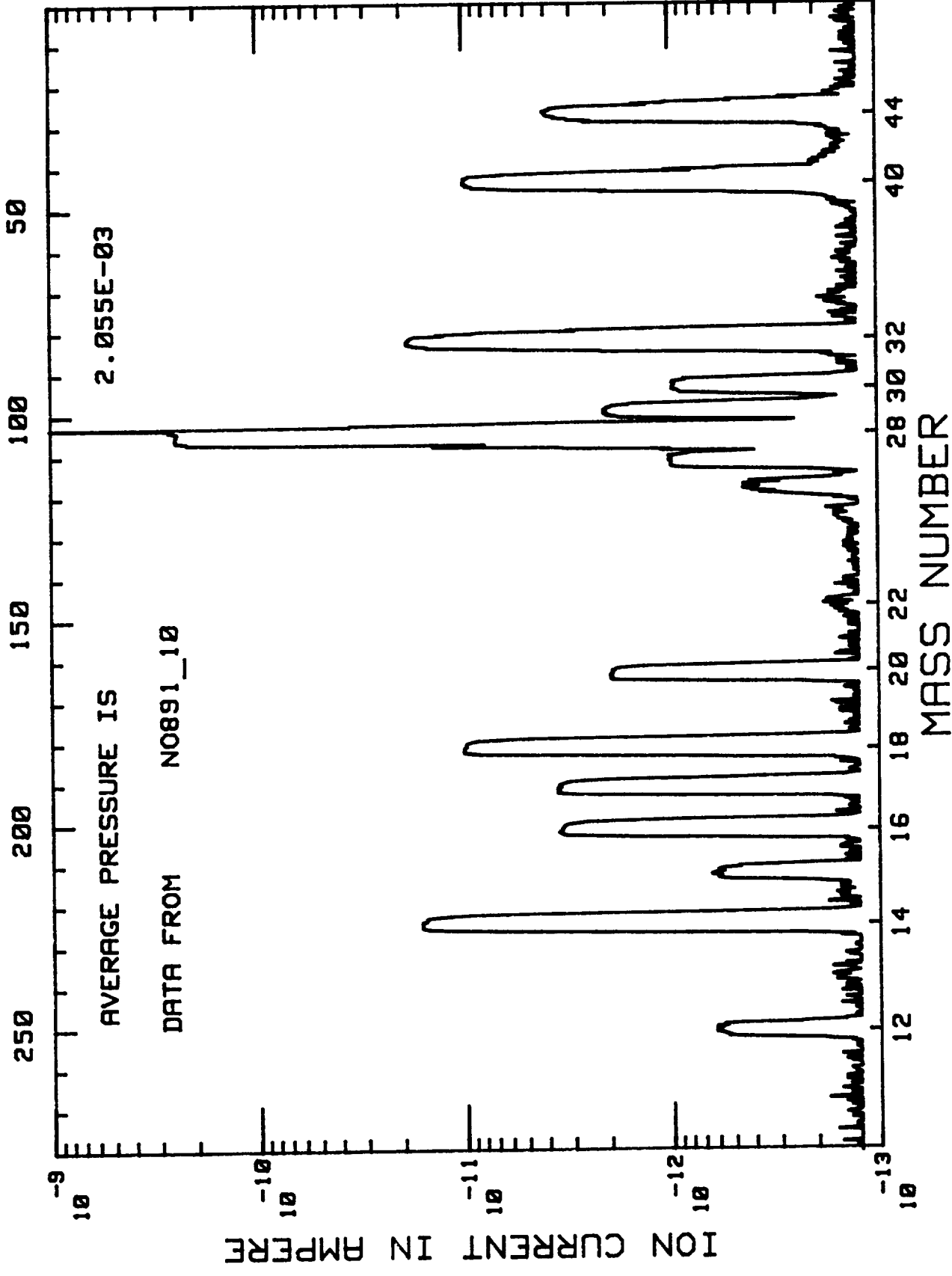
AVERAGE PRESSURE IS

DATA FROM NO891_11

N2 AND O2 APPROX 2E-

13:13:46

26 Aug 1991

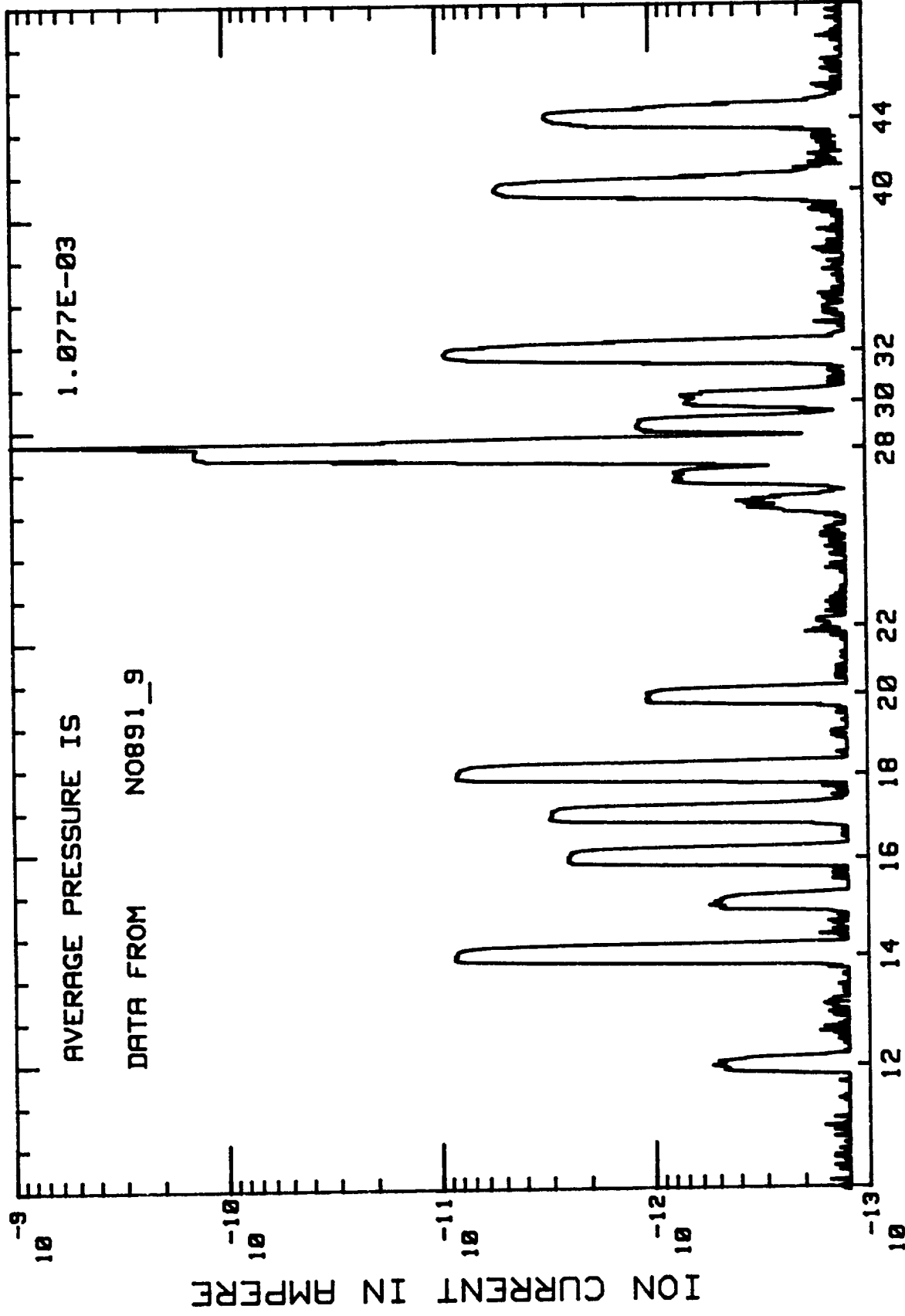


N2 AND O2 APPROX 1E-

13:08:50

26 Aug 1991

250 200 150 100 50

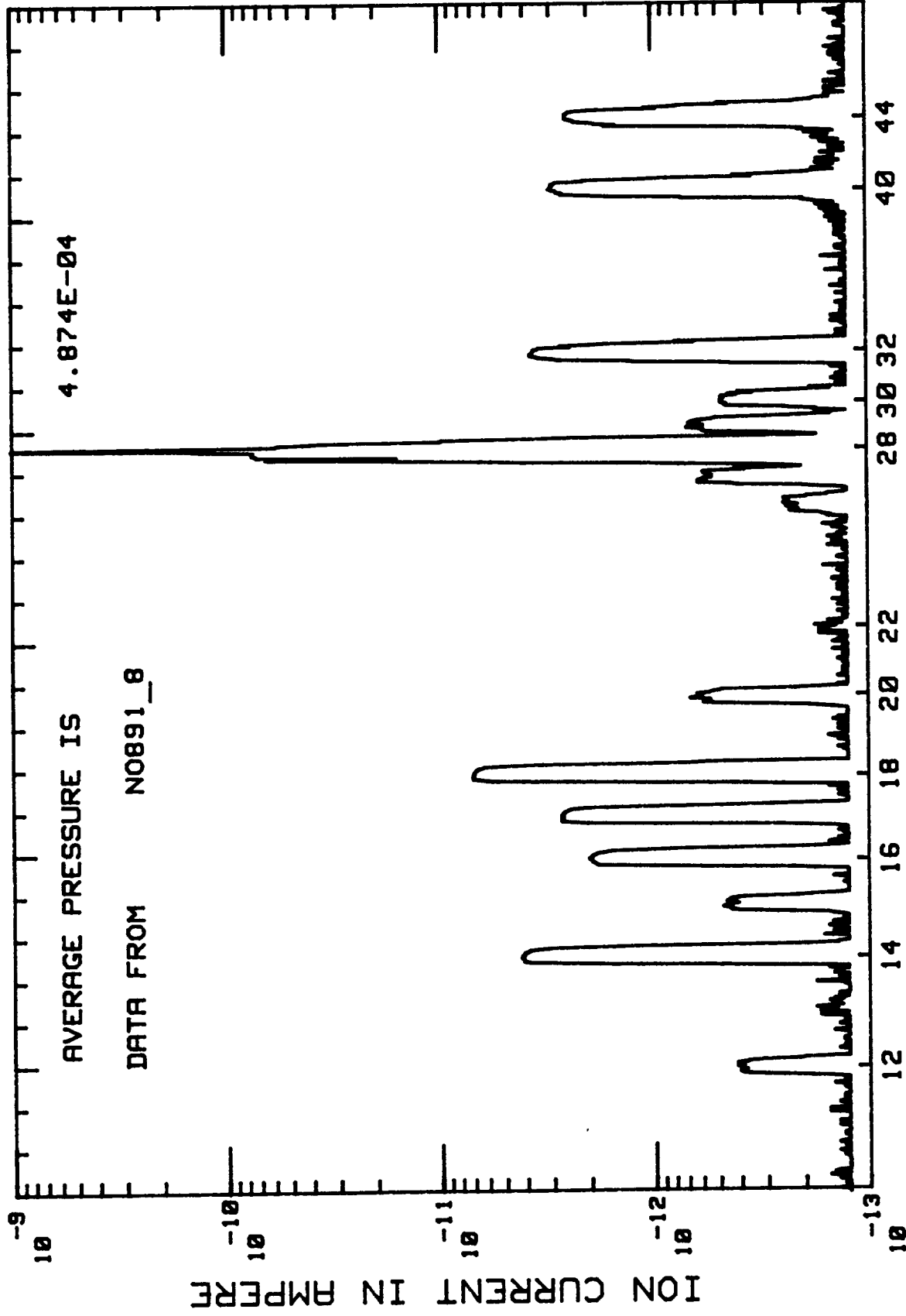


N2 AND O2 TEST APPRO

13:04:54

26 Aug 1991

250 200 150 100 50



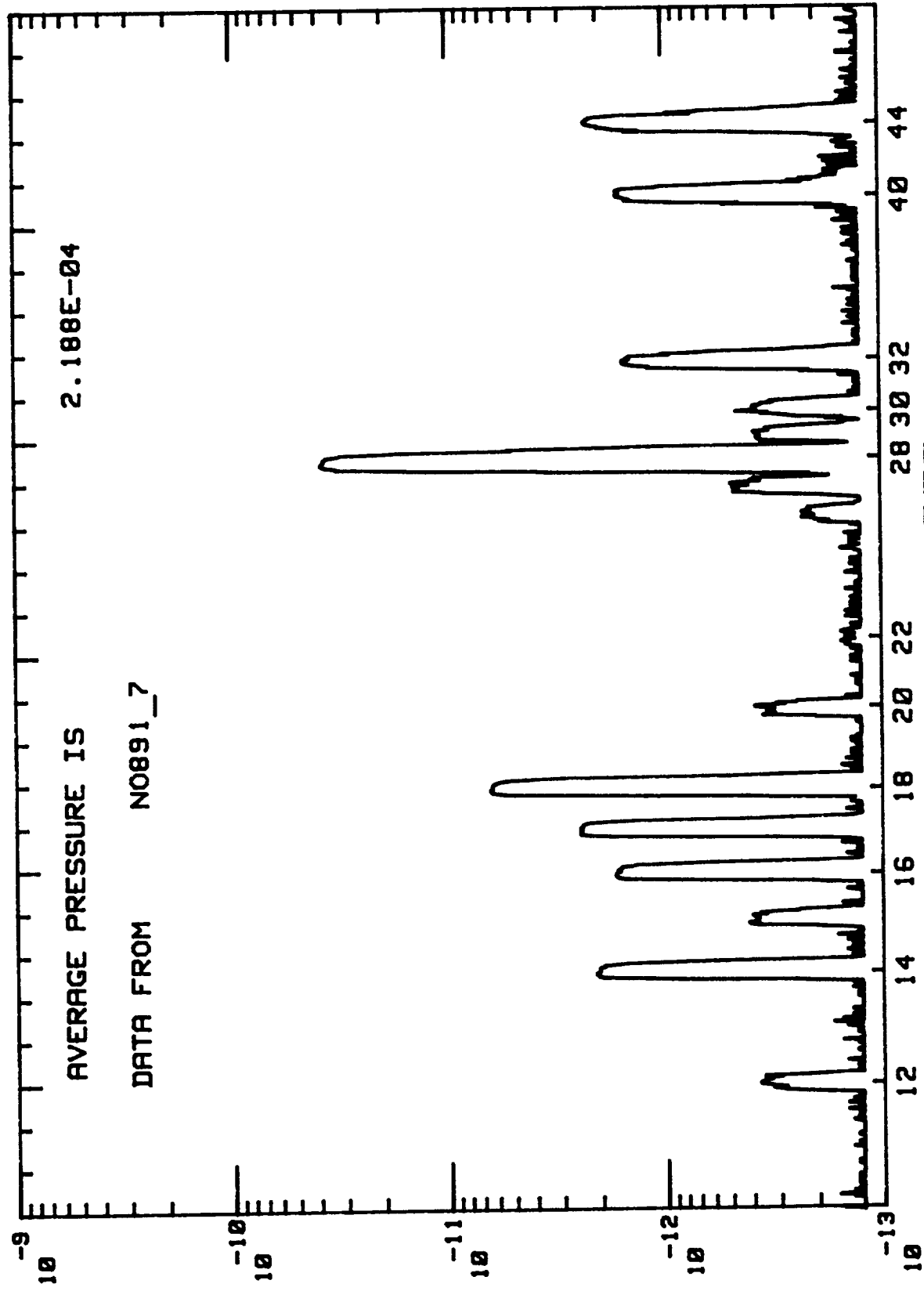
NITROGEN AND OXYGEN 12:58:59 26 Aug 1991

250 200 150 100 50

AVERAGE PRESSURE IS 2.188E-04

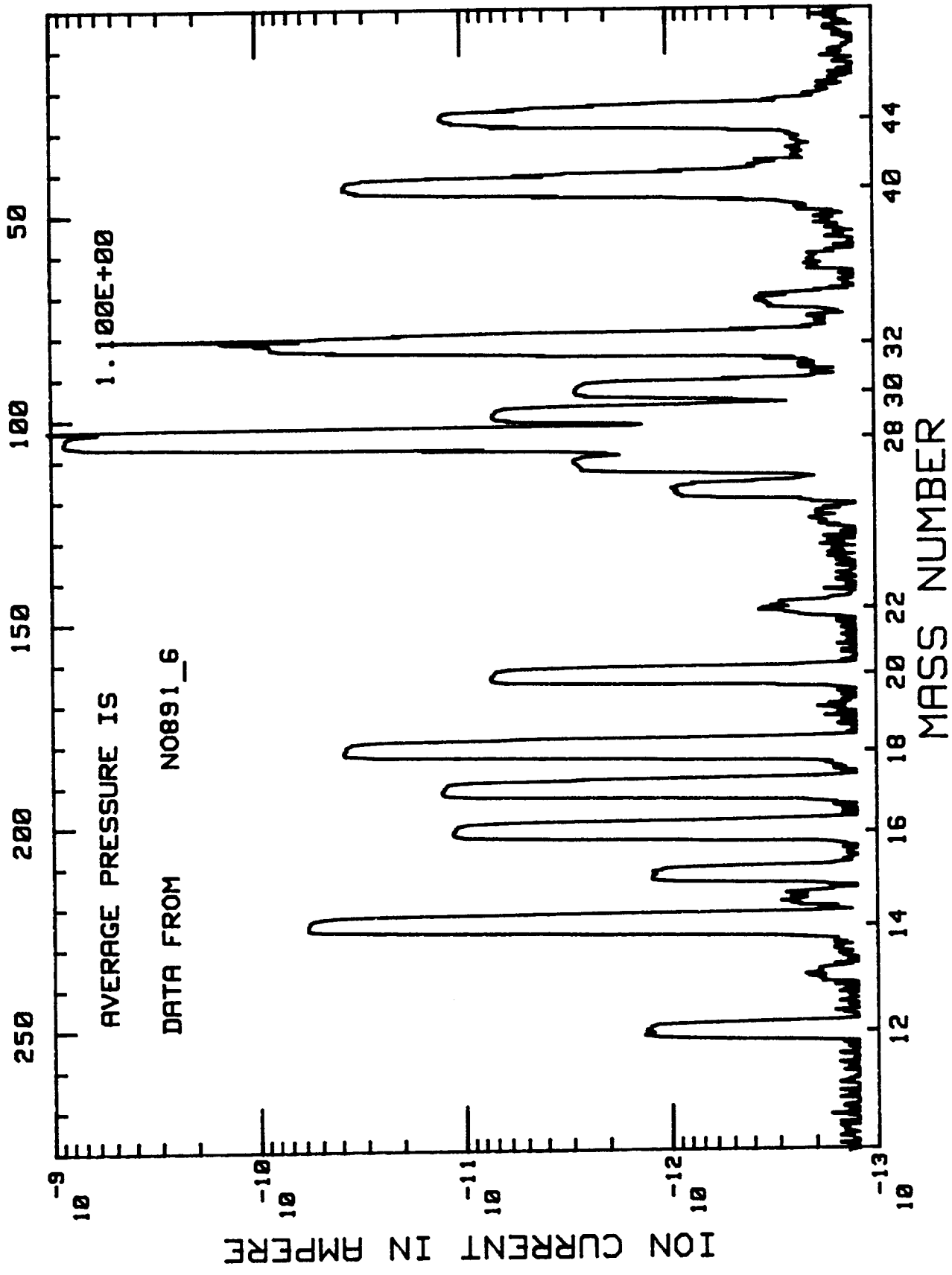
DATA FROM N0891_7

ION CURRENT IN AMPERE



MASS NUMBER

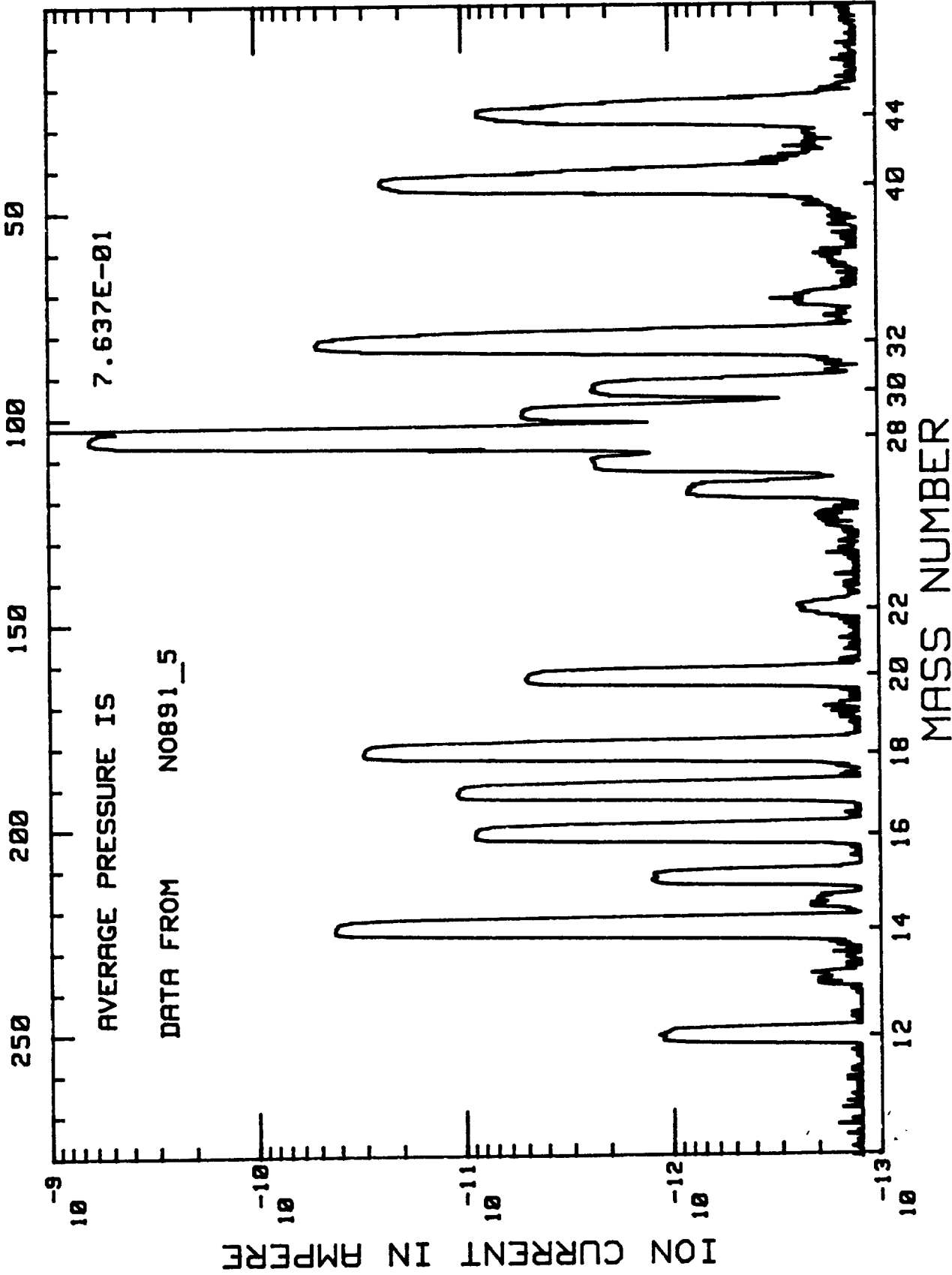
NO AT APPROX 1 TORR 14:42:28 15 Aug 1991



NO AT 7.6E-1

14:31:59

15 Aug 1991



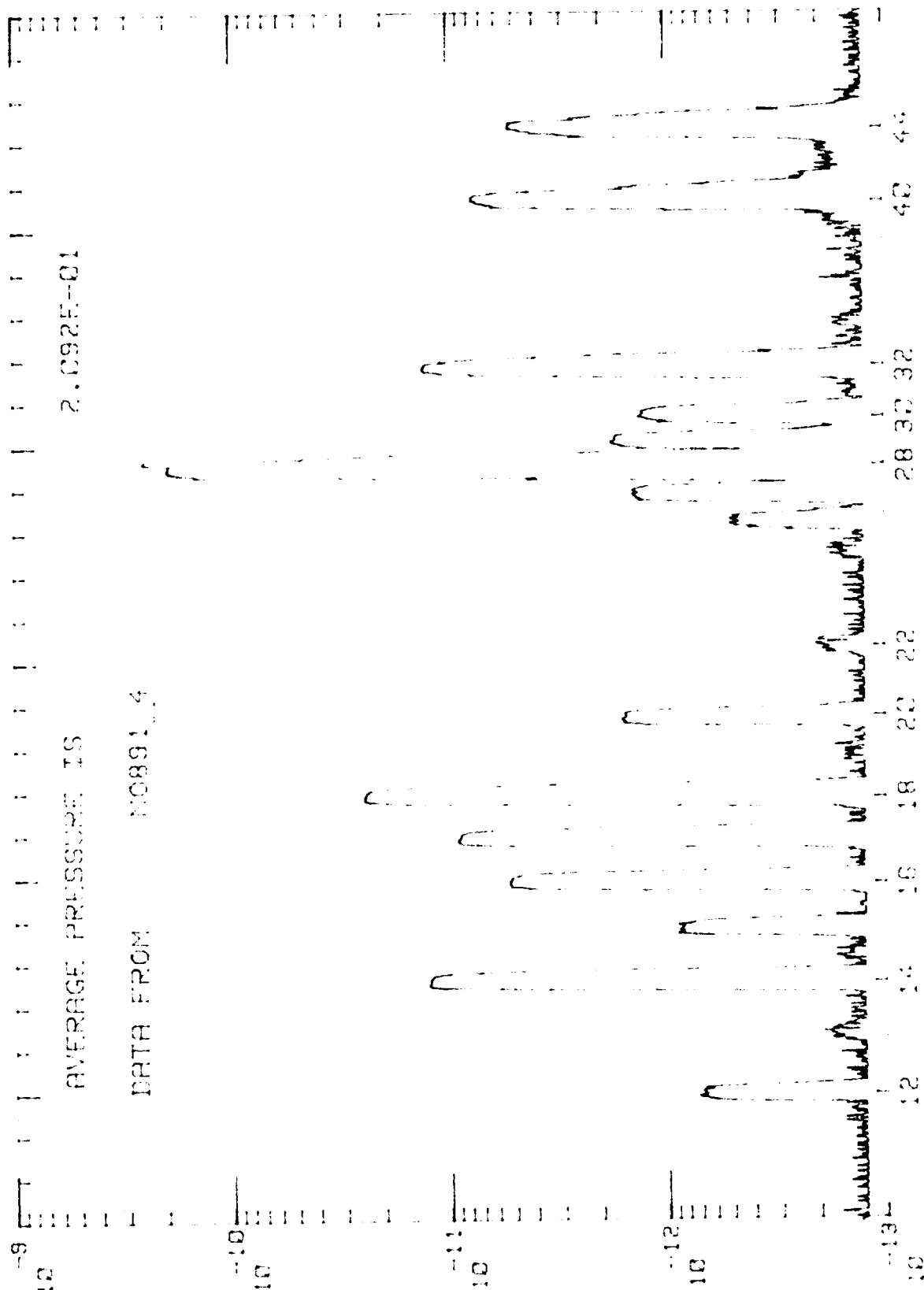
N O AT APPROX .2 TOR 14:24:10 15 Aug 1991

250 200 150 100 50

AVERAGE PRESSURE IS 2.092E-01

DATA FROM NO891_4

ION CURRENT IN AMPERE



NO891_4

14:04:17 15 Aug 1991

APPROX 6.5E-3 RANGE

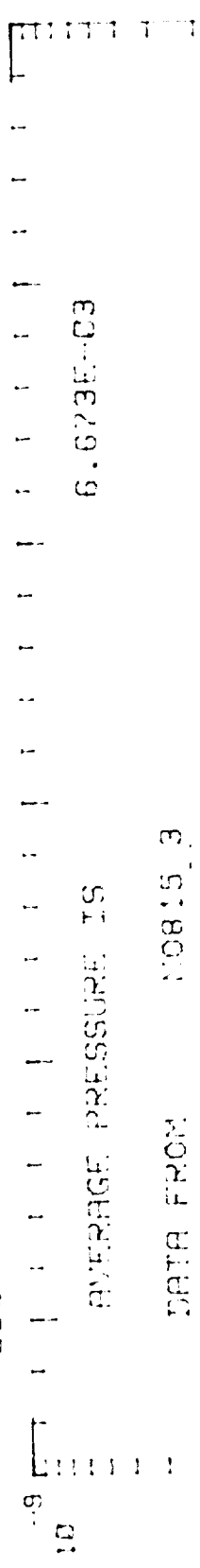
50

100

150

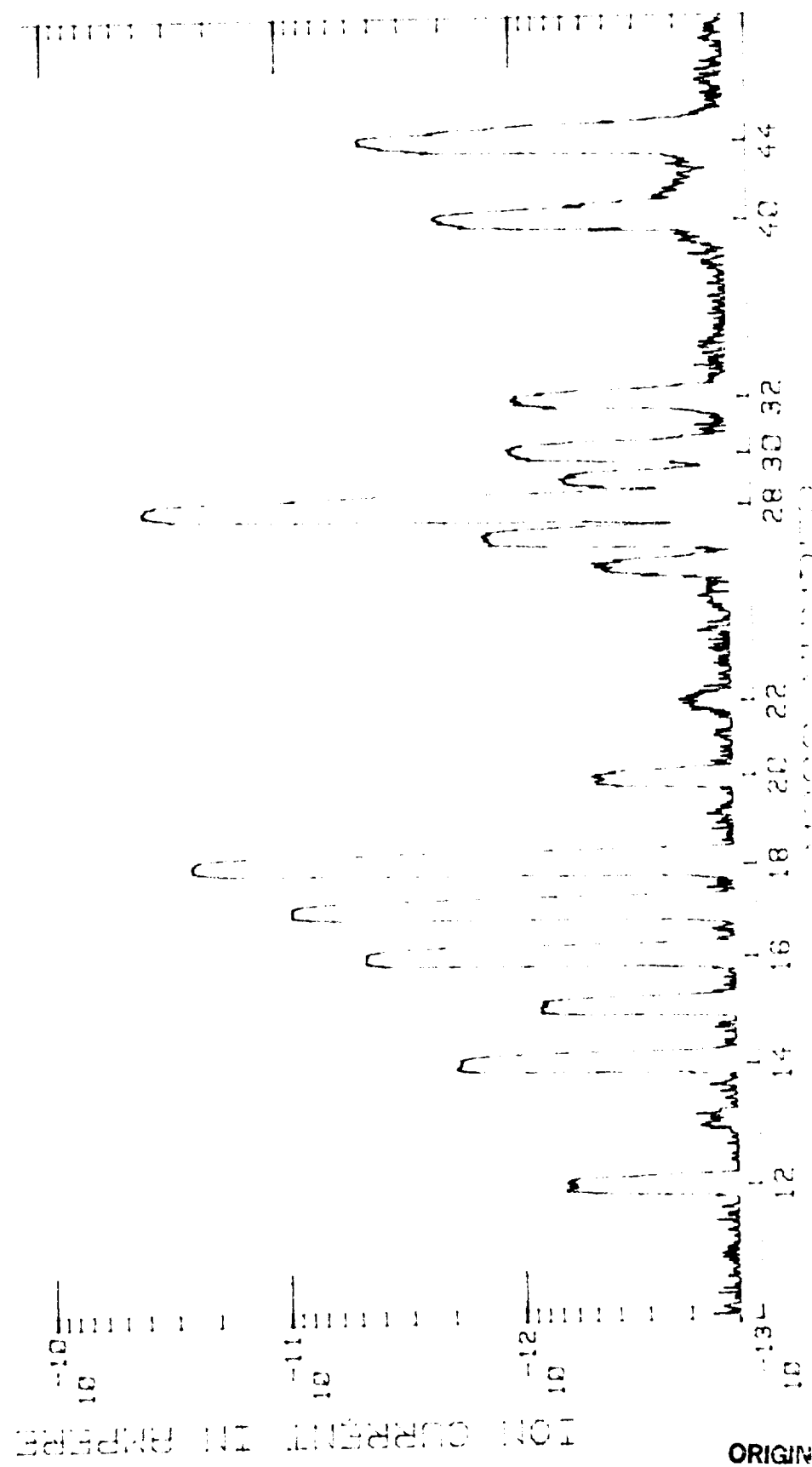
200

250



AVERAGE PRESSURE IS 6.673E-03

DATA FROM 10815.3



ORIGINAL PAGE IS
OF POOR QUALITY

NO APPROX 6E-3

13:58:01

15 Aug 1991

50

100

150

200

250

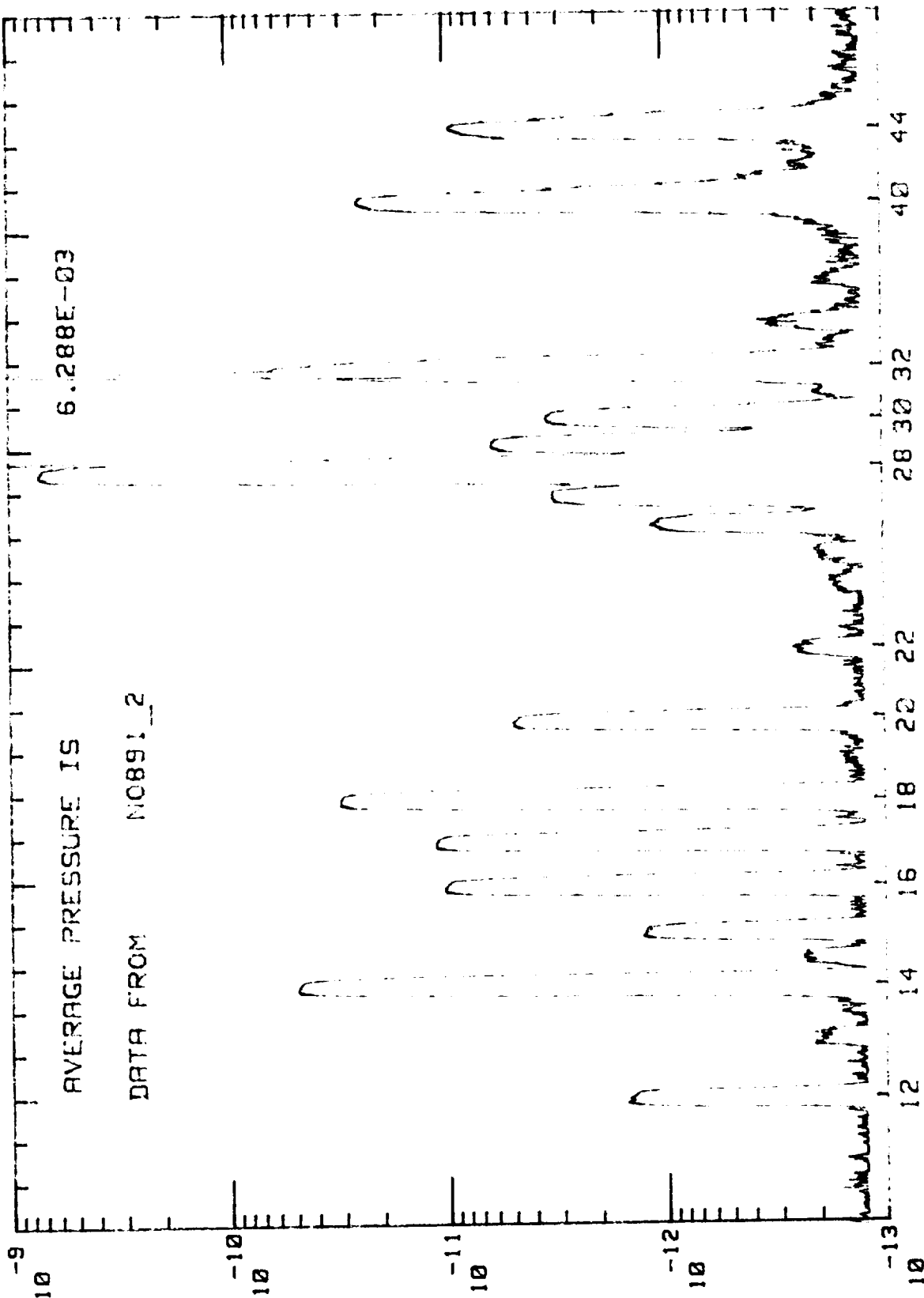
AVERAGE PRESSURE IS

6.288E-03

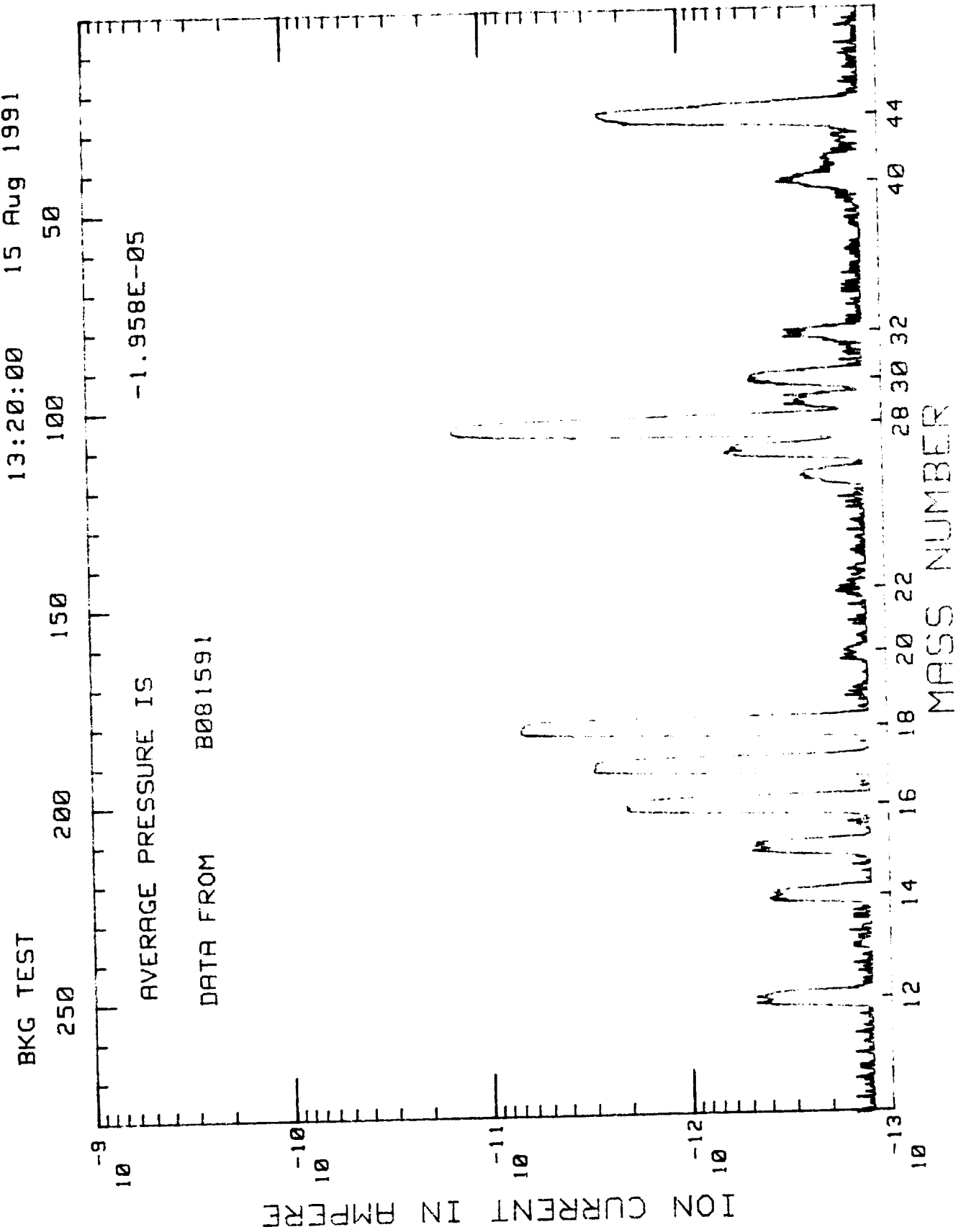
DATA FROM

NO891_2

ION CURRENT IN AMPERE



MASS NUMBER



BKG TEST

12:36:42 26 Aug 1991

50

100

150

200

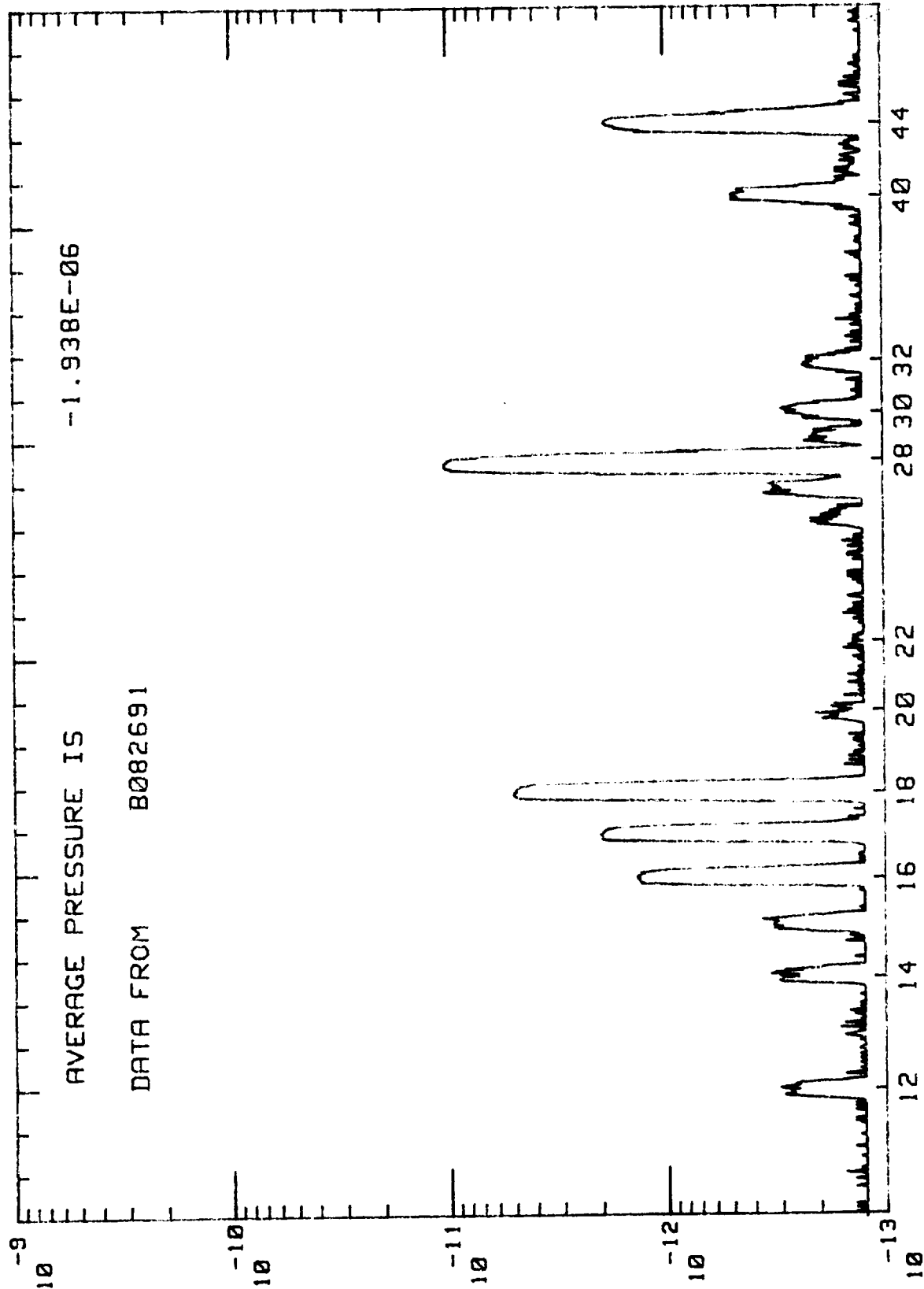
250

AVERAGE PRESSURE IS

-1.938E-06

DATA FROM B082691

ION CURRENT IN AMPERE



MASS NUMBER

1.0 SUMS Calibration Data

1.3 Printout of N₂/O₂/CO₂ Mixture

TEST_19
DATA FROM TEST_37
AVERAGE PRESSURE IS

14:57:22

4 Sep 1991

| | 1.708E+00 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 96.92 | 96.92 | 96.92 | 98.03 | 172 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 89.55 | 89.55 | 119 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.33 | 73.33 | 73.73 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.47E-14 |
| AVERAGE M/E 2 | CURRENT | 5.39E-12 |
| AVERAGE M/E 1 | CURRENT | 5.70E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 2.85E-12 |
| 40 | 1.92E-12 |
| 32 | 2.71E-13 |
| 30 | 3.33E-13 |
| 28 | 1.77E-11 |
| 22 | 4.84E-14 |
| 20 | 3.72E-13 |
| 18 | 7.56E-12 |
| 16 | 1.25E-12 |
| 14 | 6.08E-13 |
| 12 | 2.64E-13 |

FOR SCAN # 1 STATUS WORD 52703 205 223

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | CLOSE |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | CLOSE |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_18
DATA FROM TEST_36
AVERAGE PRESSURE IS

14:54:26

4 Sep 1991

| | 1.600E+00 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.06 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.18 | -15.29 | -15.18 | 130 |
| ION PUMP VOLTAGE | 1784.31 | 1784.31 | 1784.31 | 1784.31 | 91 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.78 | 4.82 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 74.12 | 74.12 | 74.12 | 74.12 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 4.87E-13 |
| AVERAGE M/E 2 | CURRENT | 1.04E-11 |
| AVERAGE M/E 1 | CURRENT | 1.55E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.73E-10 |
| 40 | 5.94E-11 |
| 32 | 9.31E-10 // |
| 30 | 4.34E-12 |
| 28 | 9.84E-10 |
| 22 | 9.30E-12 |
| 20 | 1.20E-11 |
| 18 | 2.02E-11 |
| 16 | 4.55E-11 |
| 14 | 5.84E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_17
 DATA FROM TEST_35
 AVERAGE PRESSURE IS

14:52:09 4 Sep 1991

| | 1.501E+00 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.06 | 15.06 | 193 |
| -15 VOLTS | -15.29 | -15.18 | -15.29 | -15.18 | 130 |
| ION PUMP VOLTAGE | 1784.31 | 1803.92 | 1784.31 | 1803.92 | 91 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 74.12 | 74.12 | 74.12 | 74.12 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 4.42E-13
 AVERAGE M/E 2 CURRENT 1.01E-11
 AVERAGE M/E 1 CURRENT 1.52E-12

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.65E-10 |
| 40 | 5.52E-11 |
| 32 | 8.67E-11 |
| 30 | 4.00E-12 |
| 28 | 9.20E-10 |
| 22 | 9.05E-12 |
| 20 | 1.12E-11 |
| 18 | 1.93E-11 |
| 16 | 4.45E-11 |
| 14 | 5.44E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_16
DATA FROM TEST_34
AVERAGE PRESSURE IS

14:47:09

4 Sep 1991

| | 1.402E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 160.00 | 157.50 | 157.50 | 157.50 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 94.71 | 95.82 | 171 |
| +5 VOLTS | 4.82 | 4.78 | 4.78 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.58E-13 |
| AVERAGE M/E 2 | CURRENT | 1.01E-11 |
| AVERAGE M/E 1 | CURRENT | 1.36E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.65E-10 |
| 40 | 4.55E-11 |
| 32 | 6.14E-11 |
| 30 | 3.22E-12 |
| 28 | 7.78E-10 |
| 22 | 9.18E-12 |
| 20 | 9.30E-12 |
| 18 | 1.72E-11 |
| 16 | 4.30E-11 |
| 14 | 4.35E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_15
DATA FROM TEST_33
AVERAGE PRESSURE IS

14:44:34

4 Sep 1991

1.304E+00

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 160.00 | 157.50 | 157.50 | 157.50 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 94.71 | 95.82 | 171 |
| +5 VOLTS | 4.82 | 4.78 | 4.78 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.58E-13 |
| AVERAGE M/E 2 | CURRENT | 1.01E-11 |
| AVERAGE M/E 1 | CURRENT | 1.36E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.65E-10 |
| 40 | 4.55E-11 |
| 32 | 6.14E-11 |
| 30 | 3.22E-12 |
| 28 | 7.78E-10 |
| 22 | 9.18E-12 |
| 20 | 9.30E-12 |
| 18 | 1.72E-11 |
| 16 | 4.30E-11 |
| 14 | 4.35E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_14
DATA FROM TEST_32
AVERAGE PRESSURE IS

14:40:54

4 Sep 1991

1.200E+00

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 95.82 | 95.82 | 95.82 | 170 |
| +5 VOLTS | 4.78 | 4.82 | 4.82 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.54E-13 |
| AVERAGE M/E 2 | CURRENT | 1.04E-11 |
| AVERAGE M/E 1 | CURRENT | 1.27E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.57E-10 |
| 40 | 4.15E-11 |
| 32 | 5.34E-11 |
| 30 | 2.91E-12 |
| 28 | 6.98E-10 |
| 22 | 8.99E-12 |
| 20 | 8.56E-12 |
| 18 | 1.62E-11 |
| 16 | 4.15E-11 |
| 14 | 3.91E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_13
 DATA FROM TEST_31
 AVERAGE PRESSURE IS

14:36:32 4 Sep 1991

1.100E+00

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 94.71 | 95.82 | 170 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 2.61E-13
 AVERAGE M/E 2 CURRENT 1.13E-11
 AVERAGE M/E 1 CURRENT 1.23E-12

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.57E-10 |
| 40 | 3.73E-11 |
| 32 | 4.45E-11 |
| 30 | 2.54E-12 |
| 28 | 6.35E-10 |
| 22 | 9.05E-12 |
| 20 | 7.53E-12 |
| 18 | 1.46E-11 |
| 16 | 4.15E-11 |
| 14 | 3.36E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_12
 DATA FROM TEST_30
 AVERAGE PRESSURE IS

14:33:52

4 Sep 1991

| | 1.007E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 94.71 | 94.71 | 170 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 2.33E-13
 AVERAGE M/E 2 CURRENT 1.18E-11
 AVERAGE M/E 1 CURRENT 1.11E-12

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.49E-10 |
| 40 | 3.46E-11 |
| 32 | 3.76E-11 |
| 30 | 2.29E-12 |
| 28 | 5.83E-10 |
| 22 | 8.80E-12 |
| 20 | 6.94E-12 |
| 18 | 1.36E-11 |
| 16 | 4.05E-11 |
| 14 | 2.94E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_11
 DATA FROM TEST_29
 AVERAGE PRESSURE IS

14:29:07

4 Sep 1991

8.999E-01

| | ENG UNITS | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1823.53 | 1823.53 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 155.00 | 157.50 | 157.50 | 157.50 | 106 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 93.61 | 94.71 | 170 |
| +5 VOLTS | 4.82 | 4.78 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 1.55E-13
 AVERAGE M/E 2 CURRENT 8.83E-12
 AVERAGE M/E 1 CURRENT 9.09E-13

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.49E-10 |
| 40 | 2.22E-11 |
| 32 | 2.02E-11 |
| 30 | 1.50E-12 |
| 28 | 3.73E-10 |
| 22 | 9.05E-12 |
| 20 | 4.59E-12 |
| 18 | 1.08E-11 |
| 16 | 3.96E-11 |
| 14 | 1.67E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_10
 DATA FROM TEST_28
 AVERAGE PRESSURE IS

14:26:43

4 Sep 1991

| | 7.998E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1823.53 | 1823.53 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 155.00 | 157.50 | 157.50 | 157.50 | 106 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 93.61 | 94.71 | 170 |
| +5 VOLTS | 4.82 | 4.78 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.55E-13 |
| AVERAGE M/E 2 | CURRENT | 8.83E-12 |
| AVERAGE M/E 1 | CURRENT | 9.09E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.49E-10 |
| 40 | 2.22E-11 |
| 32 | 2.02E-11 |
| 30 | 1.55E-12 |
| 28 | 3.73E-10 |
| 22 | 9.05E-12 |
| 20 | 4.59E-12 |
| 18 | 1.08E-11 |
| 16 | 3.96E-11 |
| 14 | 1.67E-11 |
| 12 | 1.77E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_9
DATA FROM TEST_27
AVERAGE PRESSURE IS

14:23:51

4 Sep 1991

7.024E-01

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 94.71 | 169 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.33 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.42E-13 |
| AVERAGE M/E 2 | CURRENT | 8.83E-12 |
| AVERAGE M/E 1 | CURRENT | 7.40E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.41E-10 |
| 40 | 1.62E-11 |
| 32 | 7.69E-12 |
| 30 | 1.00E-12 |
| 28 | 2.42E-10 |
| 22 | 8.80E-12 |
| 20 | 3.38E-12 |
| 18 | 9.05E-12 |
| 16 | 3.86E-11 |
| 14 | 8.31E-12 |
| 12 | 1.72E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_8
DATA FROM TEST_26
AVERAGE PRESSURE IS

14:21:25

4 Sep 1991

| | 6.298E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 94.71 | 169 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.33 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.42E-13 |
| AVERAGE M/E 2 | CURRENT | 8.83E-12 |
| AVERAGE M/E 1 | CURRENT | 7.40E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.41E-10 |
| 40 | 1.62E-11 |
| 32 | 7.69E-12 |
| 30 | 1.00E-12 |
| 28 | 2.42E-10 |
| 22 | 8.80E-12 |
| 20 | 3.38E-12 |
| 18 | 9.05E-12 |
| 16 | 3.86E-11 |
| 14 | 8.31E-12 |
| 12 | 1.72E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_7
 DATA FROM TEST_25
 AVERAGE PRESSURE IS

14:14:19

4 Sep 1991

5.002E-01

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 152.50 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 93.61 | 169 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.33 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 4.84E-14 |
| AVERAGE M/E 2 | CURRENT | 8.12E-12 |
| AVERAGE M/E 1 | CURRENT | 5.08E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.98E-10 |
| 40 | 8.31E-12 |
| 32 | 2.33E-13 |
| 30 | 4.58E-13 |
| 28 | 9.51E-11 |
| 22 | 5.05E-12 |
| 20 | 1.71E-12 |
| 18 | 6.08E-12 |
| 16 | 2.27E-11 |
| 14 | 1.61E-12 |
| 12 | 1.01E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_6
 DATA FROM TEST_24
 AVERAGE PRESSURE IS

14:11:14 4 Sep 1991

| | 4.009E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 152.50 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 93.61 | 169 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.33 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 4.84E-14 |
| AVERAGE M/E 2 | CURRENT | 8.12E-12 |
| AVERAGE M/E 1 | CURRENT | 5.08E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.98E-10 |
| 40 | 8.31E-12 |
| 32 | 2.33E-13 |
| 30 | 4.58E-13 |
| 28 | 9.51E-11 |
| 22 | 5.05E-12 |
| 20 | 1.71E-12 |
| 18 | 6.08E-12 |
| 16 | 2.27E-11 |
| 14 | 1.61E-12 |
| 12 | 1.01E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_5
DATA FROM TEST_23
AVERAGE PRESSURE IS

14:08:03

4 Sep 1991

3.029E-01

| | ENG UNITS | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 152.50 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 93.61 | 93.61 | 169 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.33 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 4.84E-14 |
| AVERAGE M/E 2 | CURRENT | 8.12E-12 |
| AVERAGE M/E 1 | CURRENT | 5.08E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.98E-10 |
| 40 | 8.31E-12 |
| 32 | 2.33E-13 |
| 30 | 4.58E-13 |
| 28 | 9.51E-11 |
| 22 | 5.05E-12 |
| 20 | 1.71E-12 |
| 18 | 6.08E-12 |
| 16 | 2.27E-11 |
| 14 | 1.61E-12 |
| 12 | 1.01E-11 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_4
DATA FROM TEST_22
AVERAGE PRESSURE IS

14:05:06 4 Sep 1991

| | 2.005E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.14 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 152.50 | 152.50 | 152.50 | 152.50 | 105 |
| PRE AMP TEMP DEG F | 92.50 | 93.61 | 92.50 | 92.50 | 168 |
| +5 VOLTS | 4.82 | 4.82 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.06 | 119 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.73 | 73.33 | 73.33 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 5.09E-14 |
| AVERAGE M/E 2 | CURRENT | 7.49E-12 |
| AVERAGE M/E 1 | CURRENT | 4.65E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.31E-10 |
| 40 | 5.52E-12 |
| 32 | 2.09E-13 |
| 30 | 3.20E-13 |
| 28 | 6.24E-11 |
| 22 | 3.30E-12 |
| 20 | 1.17E-12 |
| 18 | 5.36E-12 |
| 16 | 1.53E-11 |
| 14 | 1.19E-12 |
| 12 | 6.73E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_3
 DATA FROM TEST_21
 AVERAGE PRESSURE IS

14:00:34 4 Sep 1991

| | 1.001E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.14 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 152.50 | 152.50 | 152.50 | 152.50 | 105 |
| PRE AMP TEMP DEG F | 92.50 | 92.50 | 92.50 | 92.50 | 168 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.33 | 73.33 | 73.33 | 73.33 | 187 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 1.89E-14
 AVERAGE M/E 2 CURRENT 6.74E-12
 AVERAGE M/E 1 CURRENT 3.78E-13

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 6.24E-11 |
| 40 | 3.12E-12 |
| 32 | 1.51E-13 |
| 30 | 2.29E-13 |
| 28 | 3.68E-11 |
| 22 | 1.61E-12 |
| 20 | 6.16E-13 |
| 18 | 4.71E-12 |
| 16 | 8.06E-12 |
| 14 | 7.09E-13 |
| 12 | 3.44E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_2
 DATA FROM TEST_20
 AVERAGE PRESSURE IS

13:32:07

4 Sep 1991

-1.346E-06

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.41 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1882.35 | 1882.35 | 1882.35 | 1882.35 | 96 |
| ION SOURCE TEMP DEG F | 147.50 | 145.00 | 147.50 | 147.50 | 103 |
| PRE AMP TEMP DEG F | 91.40 | 90.29 | 91.40 | 91.40 | 167 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.33 | 73.33 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 2.13E-14
 AVERAGE M/E 2 CURRENT 4.88E-12
 AVERAGE M/E 1 CURRENT 2.90E-13

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 1.55E-12 |
| 40 ----- | 3.29E-13 |
| 32 ----- | 1.20E-13 |
| 30 ----- | 1.16E-13 |
| 28 ----- | 7.07E-12 |
| 22 ----- | 4.07E-14 |
| 20 ----- | 5.42E-14 |
| 18 ----- | 3.58E-12 |
| 16 ----- | 6.70E-13 |
| 14 ----- | 1.16E-13 |
| 12 ----- | 1.05E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

PROGRAM MSI IS : ,700,1
DATA MSI IS : ,700,1
PROGRAM MSI IS : ,700,1
DATA MSI IS : ,700,1

TEST_1

13:23:24

4 Sep 1991

DATA FROM TEST_19
AVERAGE PRESSURE IS

-3.762E-06

| | ENG UNITS | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1882.35 | 1882.35 | 1862.75 | 1882.35 | 96 |
| ION SOURCE TEMP DEG F | 145.00 | 145.00 | 145.00 | 145.00 | 102 |
| PRE AMP TEMP DEG F | 90.29 | 90.29 | 90.29 | 90.29 | 166 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 89.55 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.33 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.50E-14 |
| AVERAGE M/E 2 | CURRENT | 4.77E-12 |
| AVERAGE M/E 1 | CURRENT | 3.00E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.53E-12 |
| 40 | 3.22E-13 |
| 32 | 1.43E-13 |
| 30 | 1.16E-13 |
| 28 | 6.94E-12 |
| 22 | 3.88E-14 |
| 20 | 4.65E-14 |
| 18 | 3.49E-12 |
| 16 | 6.74E-13 |
| 14 | 1.18E-13 |
| 12 | 1.30E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_18
DATA FROM TEST_18
AVERAGE PRESSURE IS

15:05:32 30 Aug 1991

| | 5.427E-04 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.22 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 96.92 | 96.92 | 96.92 | 96.92 | 172 |
| +5 VOLTS | 4.78 | 4.78 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.66E-14 |
| AVERAGE M/E 2 | CURRENT | 7.70E-12 |
| AVERAGE M/E 1 | CURRENT | 7.44E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.04E-12 |
| 40 | 1.72E-12 |
| 32 | 3.33E-13 |
| 30 | 3.88E-13 |
| 28 | 1.72E-11 |
| 22 | 6.20E-14 |
| 20 | 3.14E-13 |
| 18 | 9.80E-12 |
| 16 | 1.59E-12 |
| 14 | 6.94E-13 |
| 12 | 2.67E-13 |

FOR SCAN # 1 STATUS WORD 52703 205 223

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | CLOSE |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | CLOSE |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_17
 DATA FROM TEST_17
 AVERAGE PRESSURE IS

15:00:32 30 Aug 1991

| | 3.611E+00 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 96.92 | 96.92 | 96.92 | 96.92 | 172 |
| +5 VOLTS | 4.78 | 4.78 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.81 | 88.81 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.50E-14 |
| AVERAGE M/E 2 | CURRENT | 7.47E-12 |
| AVERAGE M/E 1 | CURRENT | 8.12E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.13E-12 |
| 40 | 1.77E-12 |
| 32 | 3.88E-13 |
| 30 | 4.26E-13 |
| 28 | 1.82E-11 |
| 22 | 6.59E-14 |
| 20 | 3.49E-13 |
| 18 | 1.05E-11 |
| 16 | 1.67E-12 |
| 14 | 7.21E-13 |
| 12 | 2.44E-13 |

FOR SCAN # 1 STATUS WORD 52703 205 223

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | CLOSE |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | CLOSE |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_16
DATA FROM TEST_16
AVERAGE PRESSURE IS

14:54:07 30 Aug 1991

| | 1.400E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.22 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 96.92 | 96.92 | 96.92 | 96.92 | 172 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 89.55 | 88.81 | 89.55 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.70E-14 |
| AVERAGE M/E 2 | CURRENT | 7.22E-12 |
| AVERAGE M/E 1 | CURRENT | 8.51E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.50E-12 |
| 40 | 1.84E-12 |
| 32 | 4.53E-13 |
| 30 | 4.88E-13 |
| 28 | 1.96E-11 |
| 22 | 5.62E-14 |
| 20 | 3.33E-13 |
| 18 | 1.18E-11 |
| 16 | 1.79E-12 |
| 14 | 7.90E-13 |
| 12 | 2.83E-13 |

FOR SCAN # 1 STATUS WORD 52703 205 223

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | CLOSE |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | CLOSE |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_15
 DATA FROM TEST_15
 AVERAGE PRESSURE IS

14:48:07 30 Aug 1991

| | 1.401E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.22 | 15.14 | 15.22 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 96.92 | 96.92 | 96.92 | 96.92 | 172 |
| +5 VOLTS | 4.78 | 4.78 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 89.55 | 89.55 | 89.55 | 89.55 | 120 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.29E-14 |
| AVERAGE M/E 2 | CURRENT | 6.49E-12 |
| AVERAGE M/E 1 | CURRENT | 1.11E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 4.53E-12 |
| 40 | 2.09E-12 |
| 32 | 5.89E-13 |
| 30 | 6.47E-13 |
| 28 | 2.29E-11 |
| 22 | 8.14E-14 |
| 20 | 4.50E-13 |
| 18 | 1.53E-11 |
| 16 | 2.08E-12 |
| 14 | 9.61E-13 |
| 12 | 3.57E-13 |

FOR SCAN # 1 STATUS WORD 52703 205 223

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | CLOSE |
| RANGE VALVE | CLOSE |
| PROTECTION VALVE | CLOSE |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_14
DATA FROM TEST_14
AVERAGE PRESSURE IS

14:45:42 30 Aug 1991

1.331E+00

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.18 | -15.18 | -15.29 | -15.29 | 129 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1784.31 | 1784.31 | 92 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 74.12 | 74.12 | 74.12 | 74.12 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.22E-13 |
| AVERAGE M/E 2 | CURRENT | 1.26E-11 |
| AVERAGE M/E 1 | CURRENT | 1.52E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.07E-10 |
| 40 | 5.54E-11 |
| 32 | 9.96E-11 |
| 30 | 2.60E-12 |
| 28 | 1.00E-09 |
| 22 | 2.50E-12 |
| 20 | 1.15E-11 |
| 18 | 1.92E-11 |
| 16 | 1.86E-11 |
| 14 | 7.33E-11 |
| 12 | 4.96E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_13
 DATA FROM TEST_13
 AVERAGE PRESSURE IS

14:43:07 30 Aug 1991

| | 1.121E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 96.92 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.78 | 4.82 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 74.12 | 74.12 | 74.12 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 3.17E-13
 AVERAGE M/E 2 CURRENT 1.18E-11
 AVERAGE M/E 1 CURRENT 1.40E-12

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 9.11E-11 |
| 40 | 4.75E-11 |
| 32 | 8.52E-11 |
| 30 | 2.23E-12 |
| 28 | 8.53E-10 |
| 22 | 2.12E-12 |
| 20 | 9.80E-12 |
| 18 | 1.82E-11 |
| 16 | 1.60E-11 |
| 14 | 5.54E-11 |
| 12 | 4.25E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_12
DATA FROM TEST_12
AVERAGE PRESSURE IS

14:40:12 30 Aug 1991

| | 1.103E+00 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 160.00 | 160.00 | 160.00 | 160.00 | 108 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 74.12 | 73.73 | 74.12 | 74.12 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.36E-13 |
| AVERAGE M/E 2 | CURRENT | 1.18E-11 |
| AVERAGE M/E 1 | CURRENT | 1.39E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 7.92E-11 |
| 40 | 4.65E-11 |
| 32 | 8.52E-11 |
| 30 | 2.17E-12 |
| 28 | 8.53E-10 |
| 22 | 1.79E-12 |
| 20 | 9.80E-12 |
| 18 | 1.77E-11 |
| 16 | 1.45E-11 |
| 14 | 5.54E-11 |
| 12 | 3.67E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_11
 DATA FROM TEST_11
 AVERAGE PRESSURE IS

14:36:47 30 Aug 1991

| | 1.081E+00 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 157.50 | 160.00 | 160.00 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.82 | 4.82 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 74.12 | 74.12 | 73.73 | 73.73 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.62E-13 |
| AVERAGE M/E 2 | CURRENT | 1.18E-11 |
| AVERAGE M/E 1 | CURRENT | 1.30E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 7.40E-11 |
| 40 | 4.45E-11 |
| 32 | 8.32E-11 |
| 30 | 2.05E-12 |
| 28 | 8.41E-10 |
| 22 | 1.63E-12 |
| 20 | 9.55E-12 |
| 18 | 1.65E-11 |
| 16 | 1.38E-11 |
| 14 | 5.44E-11 |
| 12 | 3.35E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_10
DATA FROM TEST_10
AVERAGE PRESSURE IS

14:33:02 30 Aug 1991

| | 8.839E-01 ENG UNITS | | | | DIT DATA |
|-----------------------------|------------------------|---------|---------|---------|----------|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1803.92 | 1803.92 | 1803.92 | 1803.92 | 92 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 160.00 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 95.82 | 95.82 | 95.82 | 95.82 | 171 |
| +5 VOLTS | 4.82 | 4.82 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 74.12 | 73.73 | 74.12 | 73.73 | 189 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.39E-13 |
| AVERAGE M/E 2 | CURRENT | 1.33E-11 |
| AVERAGE M/E 1 | CURRENT | 1.21E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 6.16E-11 |
| 40 | 3.86E-11 |
| 32 | 6.04E-11 |
| 30 | 1.77E-12 |
| 28 | 7.10E-10 |
| 22 | 1.54E-12 |
| 20 | 8.31E-12 |
| 18 | 1.48E-11 |
| 16 | 1.23E-11 |
| 14 | 4.65E-11 |
| 12 | 3.22E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_9
DATA FROM TEST_9
AVERAGE PRESSURE IS

14:30:52 30 Aug 1991

| | 6.799E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 95.82 | 95.82 | 95.82 | 170 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.81 | 88.81 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 3.05E-13 |
| AVERAGE M/E 2 | CURRENT | 9.83E-12 |
| AVERAGE M/E 1 | CURRENT | 1.05E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 5.34E-11 |
| 40 ----- | 2.81E-11 |
| 32 ----- | 4.53E-11 |
| 30 ----- | 1.43E-12 |
| 28 ----- | 5.36E-10 |
| 22 ----- | 1.34E-12 |
| 20 ----- | 5.98E-12 |
| 18 ----- | 1.30E-11 |
| 16 ----- | 1.03E-11 |
| 14 ----- | 3.46E-11 |
| 12 ----- | 2.77E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_8
 DATA FROM TEST_8
 AVERAGE PRESSURE IS

14:28:02 30 Aug 1991

6.602E-01

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 95.82 | 95.82 | 170 |
| +5 VOLTS | 4.82 | 4.82 | 4.78 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.81 | 88.81 | 88.06 | 88.06 | 119 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.70E-13 |
| AVERAGE M/E 2 | CURRENT | 9.61E-12 |
| AVERAGE M/E 1 | CURRENT | 1.02E-12 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 4.15E-11 |
| 40 | 2.72E-11 |
| 32 | 4.45E-11 |
| 30 | 1.40E-12 |
| 28 | 5.24E-10 |
| 22 | 1.01E-12 |
| 20 | 5.83E-12 |
| 18 | 1.25E-11 |
| 16 | 9.05E-12 |
| 14 | 3.46E-11 |
| 12 | 2.23E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_7

14:23:07

30 Aug 1991

DATA FROM TEST_7
AVERAGE PRESSURE IS

6.402E-01

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 95.82 | 95.82 | 95.82 | 170 |
| +5 VOLTS | 4.82 | 4.82 | 4.78 | 4.82 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 99.25 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 2.47E-13 |
| AVERAGE M/E 2 | CURRENT | 9.61E-12 |
| AVERAGE M/E 1 | CURRENT | 8.95E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 3.11E-11 |
| 40 | 2.62E-11 |
| 32 | 4.38E-11 |
| 30 | 1.30E-12 |
| 28 | 5.08E-10 |
| 22 | 7.56E-13 |
| 20 | 5.67E-12 |
| 18 | 1.13E-11 |
| 16 | 7.69E-12 |
| 14 | 3.36E-11 |
| 12 | 1.71E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_6
DATA FROM TEST_6
AVERAGE PRESSURE IS

14:16:07 30 Aug 1991

| | 4.409E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.22 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1823.53 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 157.50 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 94.71 | 94.71 | 170 |
| +5 VOLTS | 4.78 | 4.82 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 99.25 | 99.25 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 1.43E-13 |
| AVERAGE M/E 2 | CURRENT | 9.33E-12 |
| AVERAGE M/E 1 | CURRENT | 7.83E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 2.88E-11 |
| 40 | 1.82E-11 |
| 32 | 2.81E-11 |
| 30 | 1.00E-12 |
| 28 | 3.49E-10 |
| 22 | 6.98E-13 |
| 20 | 4.00E-12 |
| 18 | 9.49E-12 |
| 16 | 6.32E-12 |
| 14 | 2.31E-11 |
| 12 | 1.60E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_5
DATA FROM TEST_5
AVERAGE PRESSURE IS

14:13:11 30 Aug 1991

| | 2.403E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.14 | 15.22 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1843.14 | 1823.53 | 1823.53 | 93 |
| ION SOURCE TEMP DEG F | 157.50 | 157.50 | 155.00 | 157.50 | 107 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 94.71 | 94.71 | 170 |
| +5 VOLTS | 4.82 | 4.78 | 4.82 | 4.78 | 123 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 99.25 | 100.00 | 99.25 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 7.94E-14 |
| AVERAGE M/E 2 | CURRENT | 8.59E-12 |
| AVERAGE M/E 1 | CURRENT | 5.87E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 2.67E-11 |
| 40 | 9.80E-12 |
| 32 | 1.33E-11 |
| 30 | 6.60E-13 |
| 28 | 1.97E-10 |
| 22 | 6.32E-13 |
| 20 | 2.17E-12 |
| 18 | 7.32E-12 |
| 16 | 4.99E-12 |
| 14 | 1.20E-11 |
| 12 | 1.46E-12 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_4
DATA FROM TEST_4
AVERAGE PRESSURE IS

14:10:01 30 Aug 1991

| | 2.207E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.22 | 15.22 | 15.14 | 15.22 | 194 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1823.53 | 1843.14 | 1843.14 | 1843.14 | 93 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 157.50 | 157.50 | 106 |
| PRE AMP TEMP DEG F | 94.71 | 94.71 | 94.71 | 94.71 | 170 |
| +5 VOLTS | 4.78 | 4.78 | 4.78 | 4.78 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 99.25 | 99.25 | 100.00 | 99.25 | 133 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 1.55E-14
AVERAGE M/E 2 CURRENT 8.80E-12
AVERAGE M/E 1 CURRENT 5.54E-13

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.41E-11 |
| 40 | 9.05E-12 |
| 32 | 1.30E-11 |
| 30 | 5.80E-13 |
| 28 | 1.90E-10 |
| 22 | 2.94E-13 |
| 20 | 2.00E-12 |
| 18 | 6.67E-12 |
| 16 | 3.61E-12 |
| 14 | 1.18E-11 |
| 12 | 8.29E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |

| | |
|-------------------|----|
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_3
DATA FROM TEST_3
AVERAGE PRESSURE IS

14:05:11 30 Aug 1991

| | 2.029E-01 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.22 | 15.22 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1843.14 | 1843.14 | 1843.14 | 1843.14 | 94 |
| ION SOURCE TEMP DEG F | 155.00 | 157.50 | 157.50 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 94.71 | 93.61 | 94.71 | 94.71 | 170 |
| +5 VOLTS | 4.78 | 4.82 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 99.25 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 87.31 | 87.31 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

| | | |
|---------------|---------|----------|
| AVERAGE M/E 4 | CURRENT | 5.18E-14 |
| AVERAGE M/E 2 | CURRENT | 9.52E-12 |
| AVERAGE M/E 1 | CURRENT | 5.31E-13 |

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 2.57E-12 |
| 40 ----- | 7.69E-12 |
| 32 ----- | 1.23E-11 |
| 30 ----- | 4.60E-13 |
| 28 ----- | 1.78E-10 |
| 22 ----- | 6.01E-14 |
| 20 ----- | 1.74E-12 |
| 18 ----- | 5.70E-12 |
| 16 ----- | 2.25E-12 |
| 14 ----- | 1.13E-11 |
| 12 ----- | 2.60E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

TEST_2
 DATA FROM TEST_2
 AVERAGE PRESSURE IS

14:03:46 30 Aug 1991

| | 9.890E-04 | | | | DIT DATA |
|-----------------------------|-----------|---------|---------|---------|----------|
| | ENG UNITS | | | | |
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.14 | 15.14 | 15.22 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 93.61 | 93.61 | 94.71 | 93.61 | 169 |
| +5 VOLTS | 4.78 | 4.78 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 88.06 | 88.06 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.33 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 3.58E-14
 AVERAGE M/E 2 CURRENT 8.04E-12
 AVERAGE M/E 1 CURRENT 4.02E-13

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 | 1.69E-12 |
| 40 | 8.53E-13 |
| 32 | 1.26E-13 |
| 30 | 1.71E-13 |
| 28 | 1.18E-11 |
| 22 | 3.68E-14 |
| 20 | 1.36E-13 |
| 18 | 4.68E-12 |
| 16 | 1.08E-12 |
| 14 | 3.76E-13 |
| 12 | 1.40E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

END

PROGRAM MSI IS : ,700,1
 DATA MSI IS : ,700,1
 PROGRAM MSI IS : ,700,1
 DATA MSI IS : ,700,1

TEST_1
 DATA FROM TEST_1
 AVERAGE PRESSURE IS

14:02:44 30 Aug 1991

9.917E-04

ENG UNITS

DIT DATA

| | | | | | |
|-----------------------------|---------|---------|---------|---------|-----|
| INTERLACE NUMBER | 1.00 | 2.00 | 3.00 | 4.00 | 104 |
| +15 VOLTS | 15.14 | 15.22 | 15.22 | 15.14 | 193 |
| -15 VOLTS | -15.29 | -15.29 | -15.29 | -15.29 | 130 |
| ION PUMP VOLTAGE | 1862.75 | 1862.75 | 1862.75 | 1862.75 | 95 |
| ION SOURCE TEMP DEG F | 155.00 | 155.00 | 155.00 | 155.00 | 106 |
| PRE AMP TEMP DEG F | 94.71 | 93.61 | 93.61 | 93.61 | 170 |
| +5 VOLTS | 4.78 | 4.78 | 4.82 | 4.82 | 122 |
| A/D REF VOLTAGE | 6.35 | 6.35 | 6.35 | 6.35 | 162 |
| EMISSION CURR IN MICRO AMP | 100.00 | 100.00 | 100.00 | 100.00 | 134 |
| COLLECTOR CURR IN MICRO AMP | 88.06 | 88.06 | 87.31 | 87.31 | 118 |
| ELECTRON ACC VOLTAGE | 73.73 | 73.73 | 73.73 | 73.73 | 188 |
| REF ION ACC VOLTAGE | 1.61 | 1.61 | 1.61 | 1.61 | 41 |

CURRENTS HAVE BASE VALUE OF -1.24E-13 REMOVED

AVERAGE M/E 4 CURRENT 1.84E-14
 AVERAGE M/E 2 CURRENT 8.04E-12
 AVERAGE M/E 1 CURRENT 4.06E-13

| MASS NUMBER | ION CURRENT |
|-------------|-------------|
| 44 ----- | 1.68E-12 |
| 40 ----- | 8.33E-13 |
| 32 ----- | 1.24E-13 |
| 30 ----- | 2.17E-13 |
| 28 ----- | 1.18E-11 |
| 22 ----- | 4.26E-14 |
| 20 ----- | 1.22E-13 |
| 18 ----- | 4.68E-12 |
| 16 ----- | 1.08E-12 |
| 14 ----- | 3.68E-13 |
| 12 ----- | 1.36E-13 |

FOR SCAN # 1 STATUS WORD 52696 205 216

INSTRUMENT STATUS

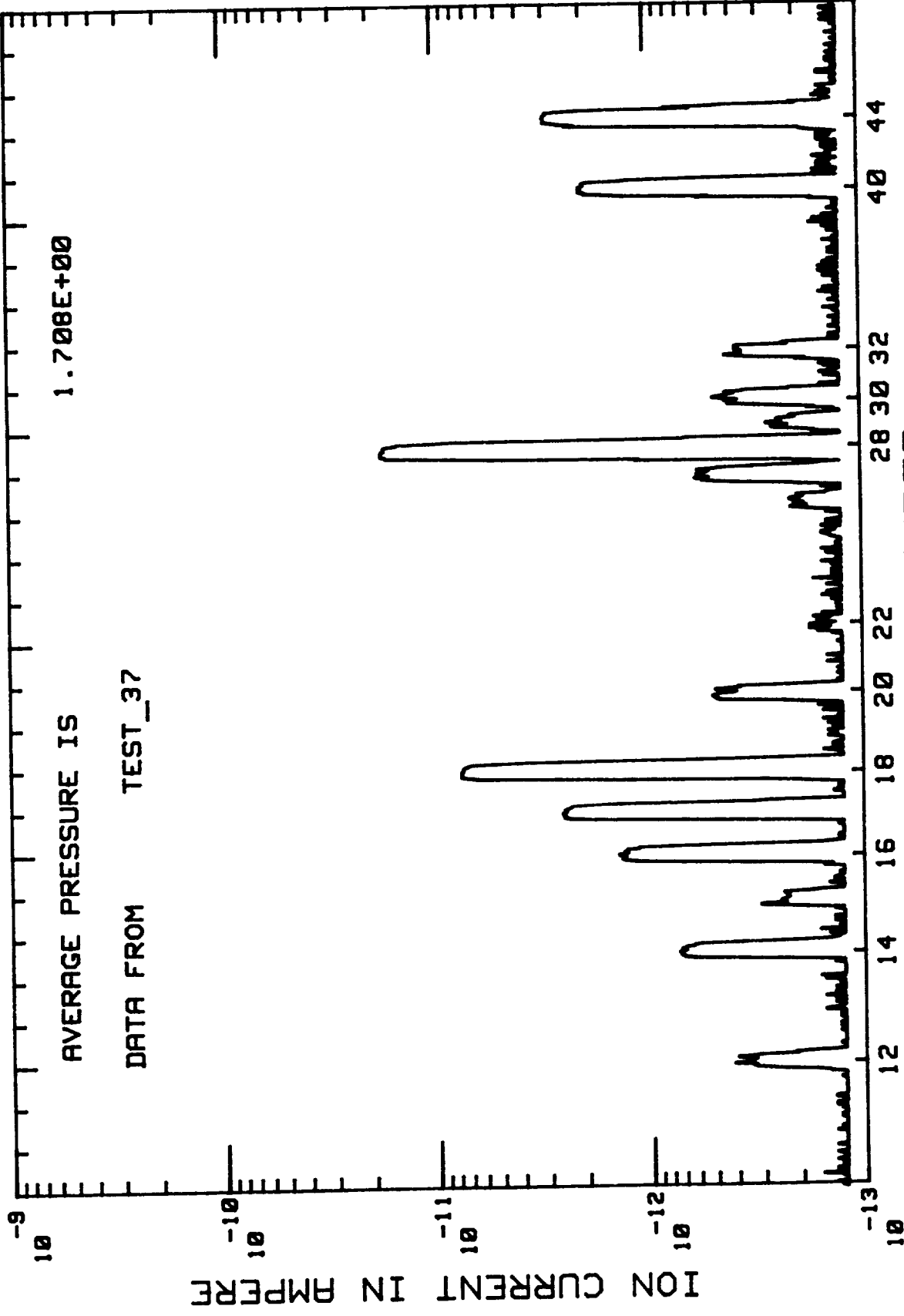
| | |
|-------------------|---------------|
| INLET VALVE | OPEN |
| RANGE VALVE | OPEN |
| PROTECTION VALVE | OPEN |
| SYSTEM RESET | RELEASE RESET |
| UAMS RESET | RELEASE RESET |
| DECODE | ID FOUND |
| BUFFER OVERFLOW | OK |
| PROCESSOR | OK |
| PROGRAM | OK |
| INTERNAL PRESSURE | OK |
| INLET PRESSURE | OK |
| INSTRUMENT POWER | ON |
| ION PUMP POWER | ON |
| ION PUMP CURRENT | OK |

1.0 SUMS Calibration Data

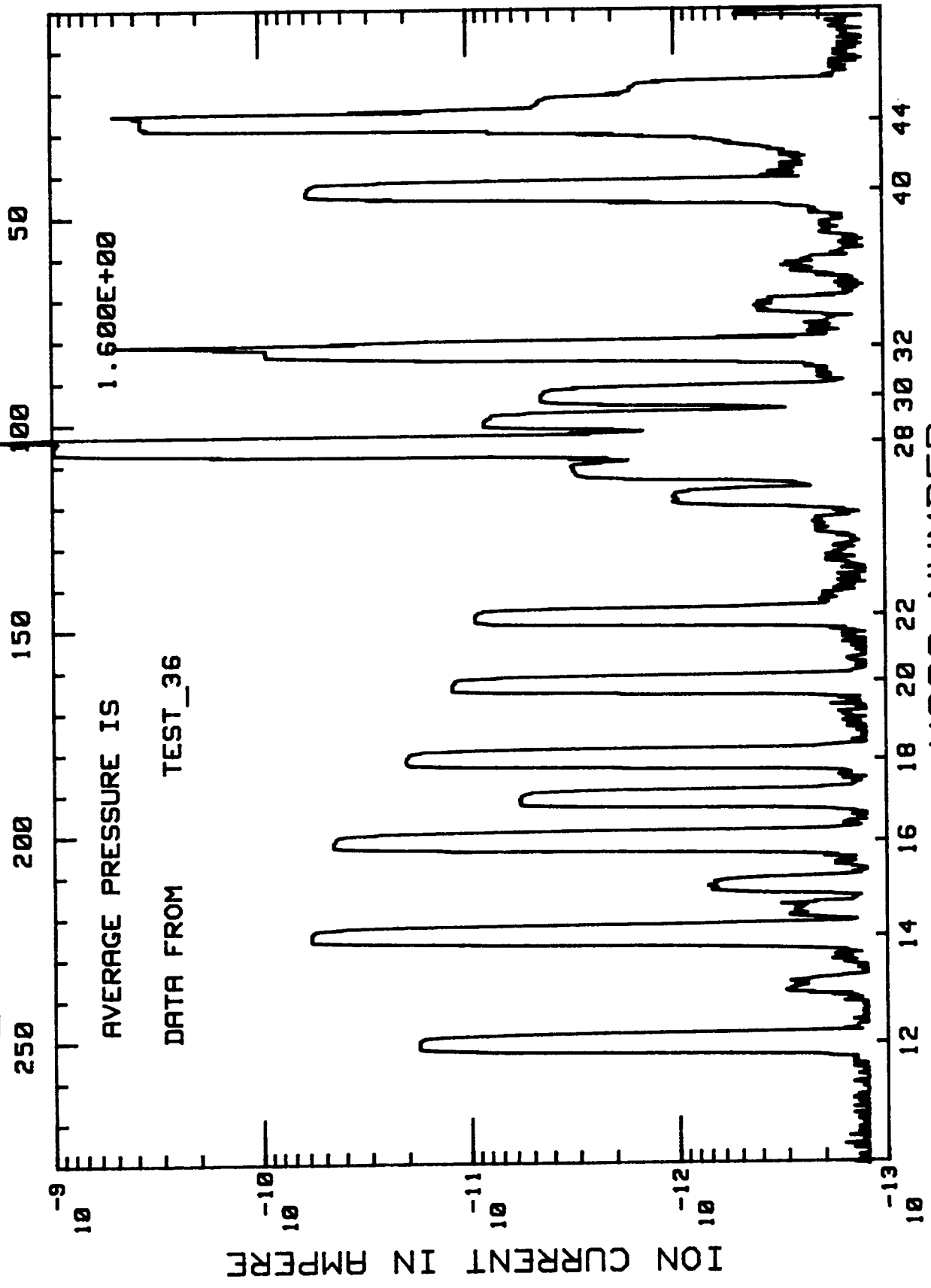
1.4 Plot of Spectra Data $\text{N}_2/\text{O}_2/\text{CO}_2$ Mixture

TEST_19 14:57:22 4 Sep 1991

250 200 150 100 50



TEST_18 14:54:26 4 Sep 1991

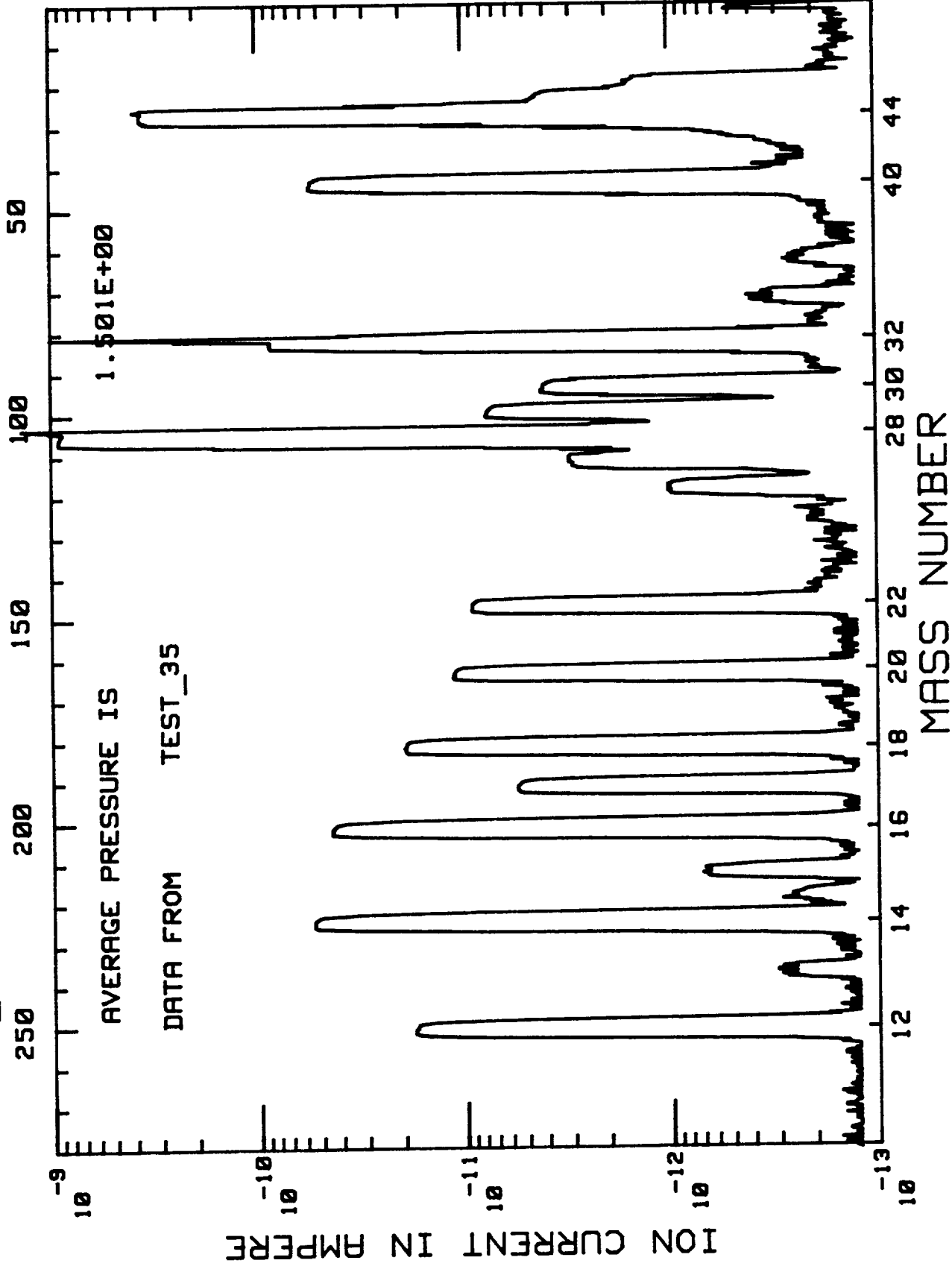


AVERAGE PRESSURE IS
DATA FROM TEST_36

TEST_17

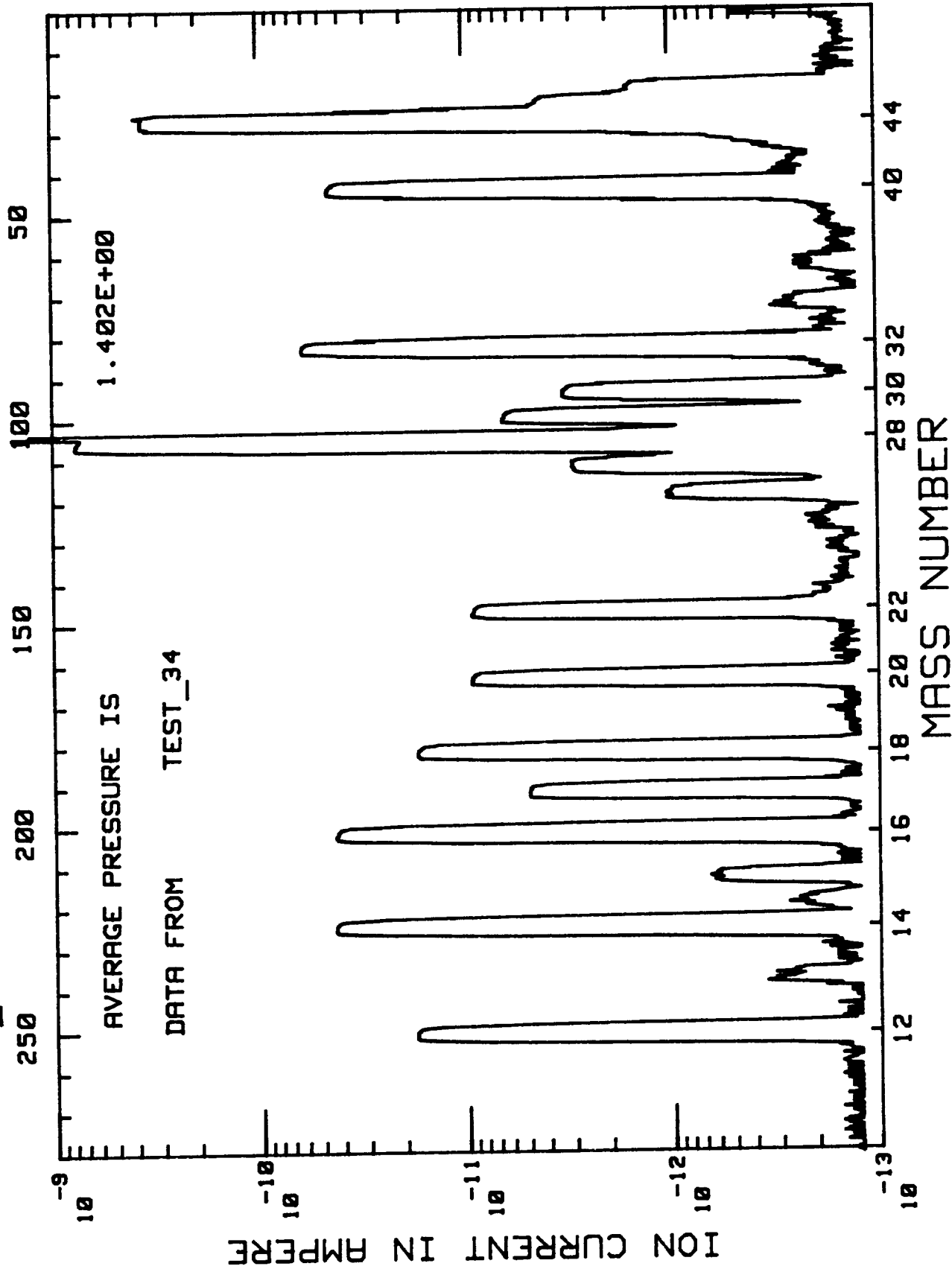
14:52:09

4 Sep 1991

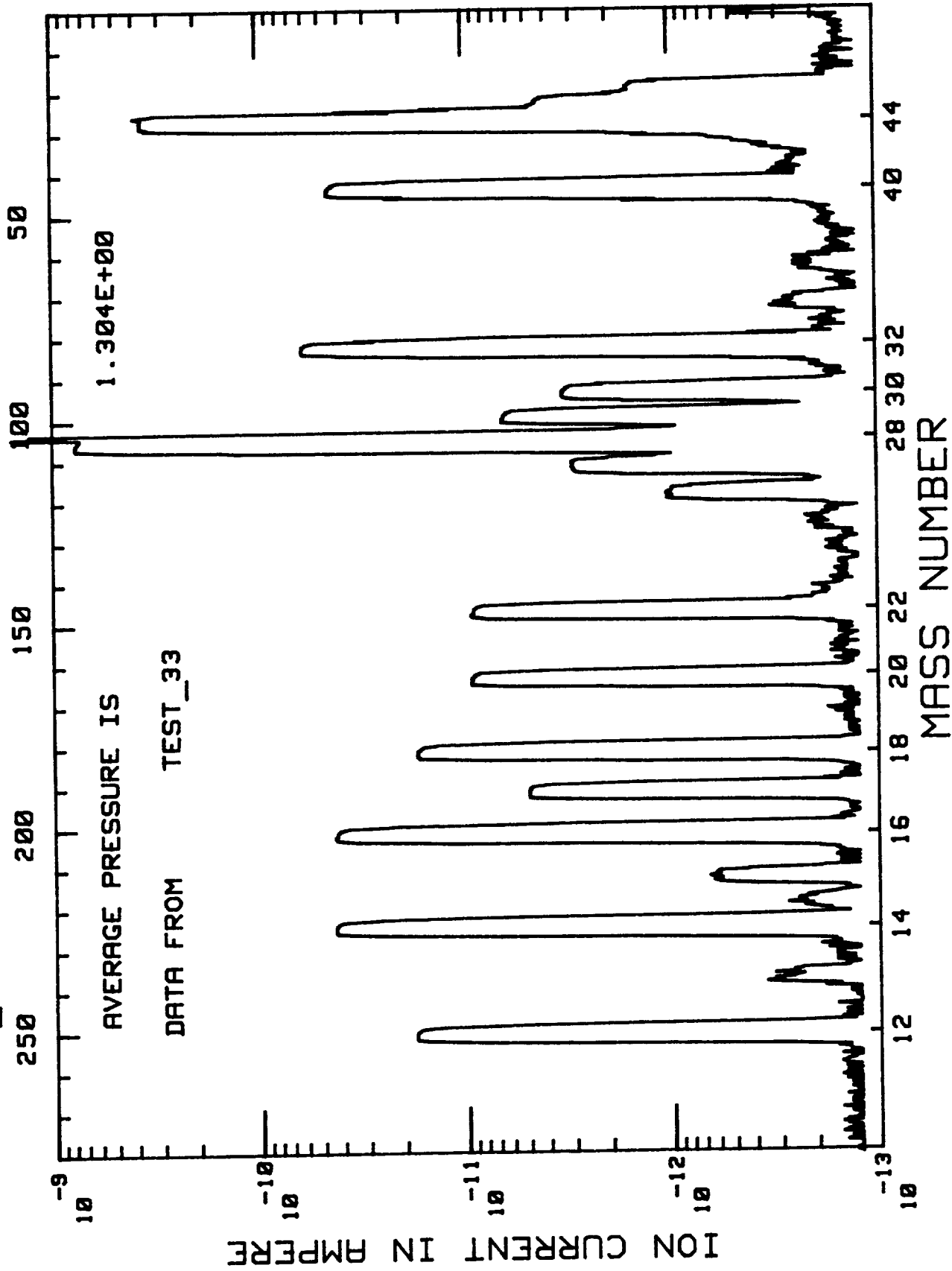


TEST_16

14:47:09 4 Sep 1991

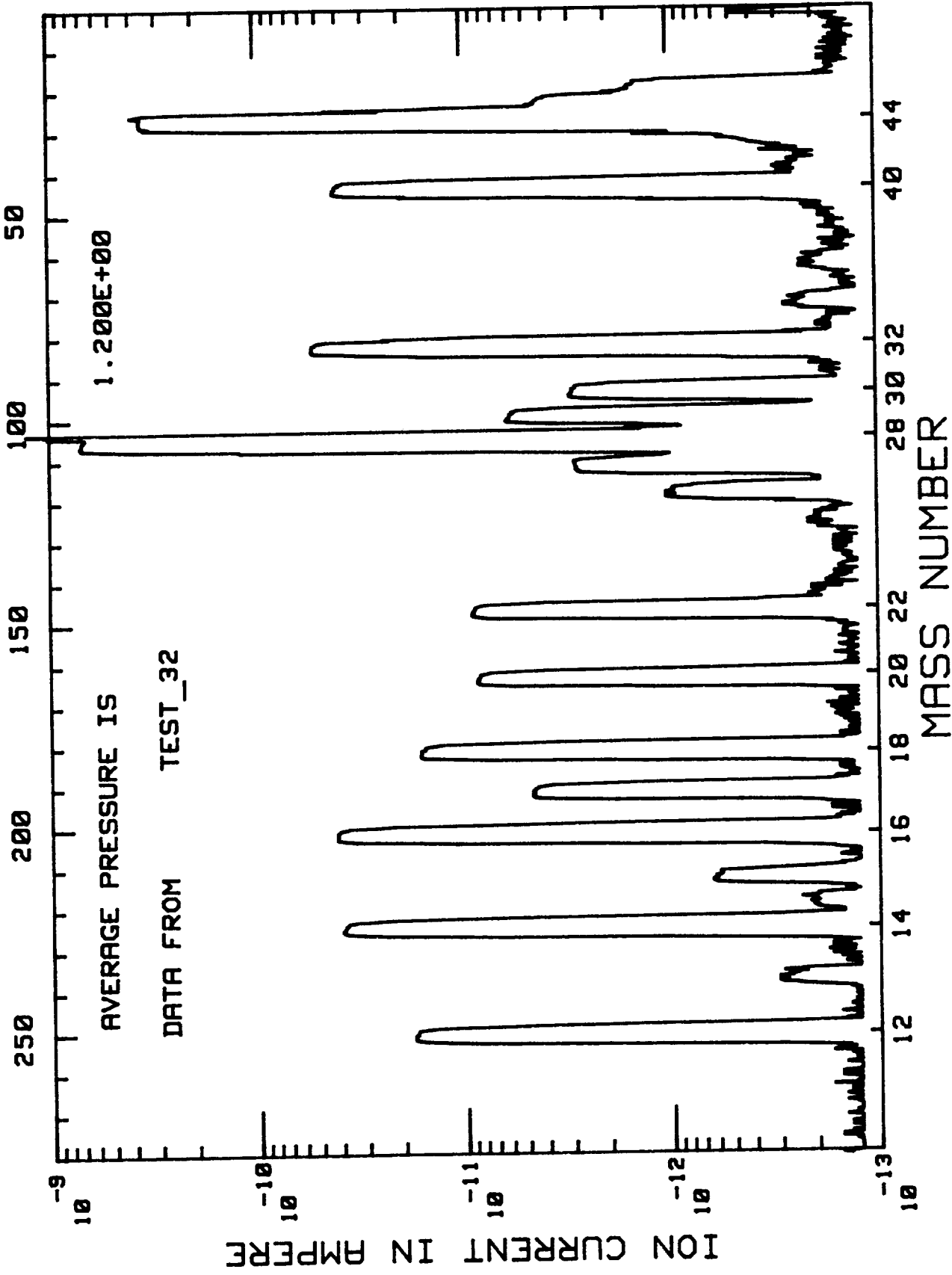


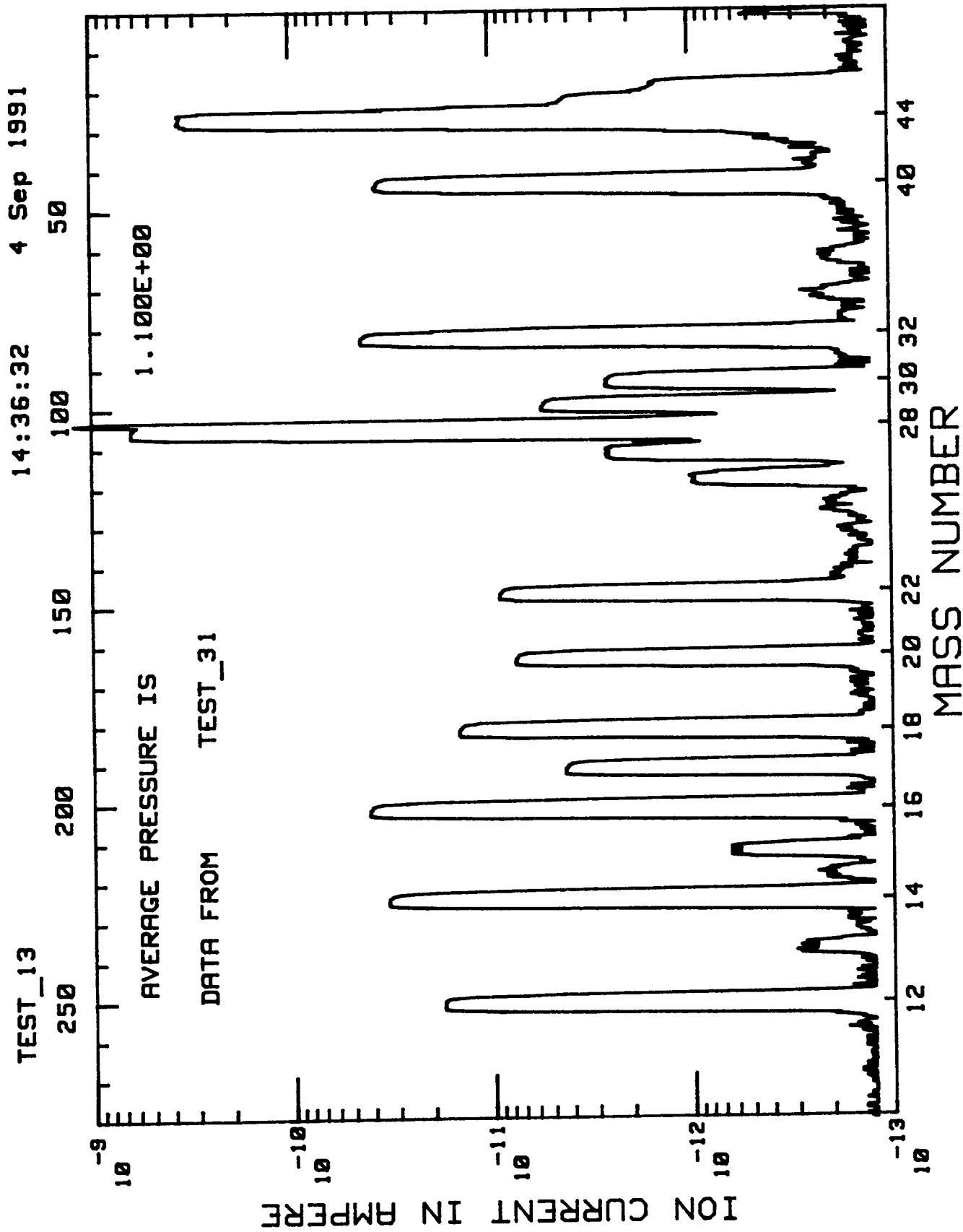
TEST_15 14:44:34 4 Sep 1991



TEST_14

14:40:54 4 Sep 1991

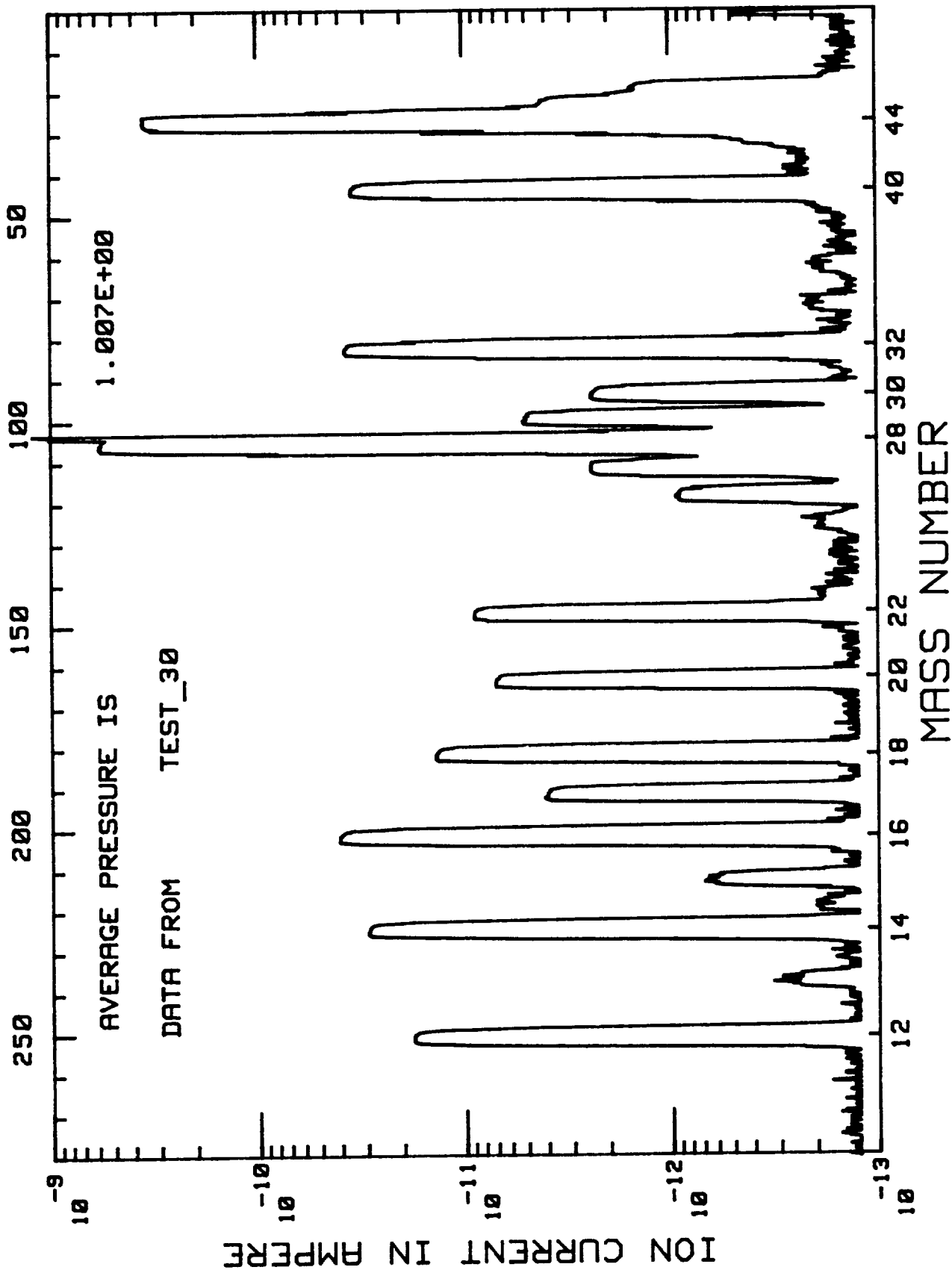




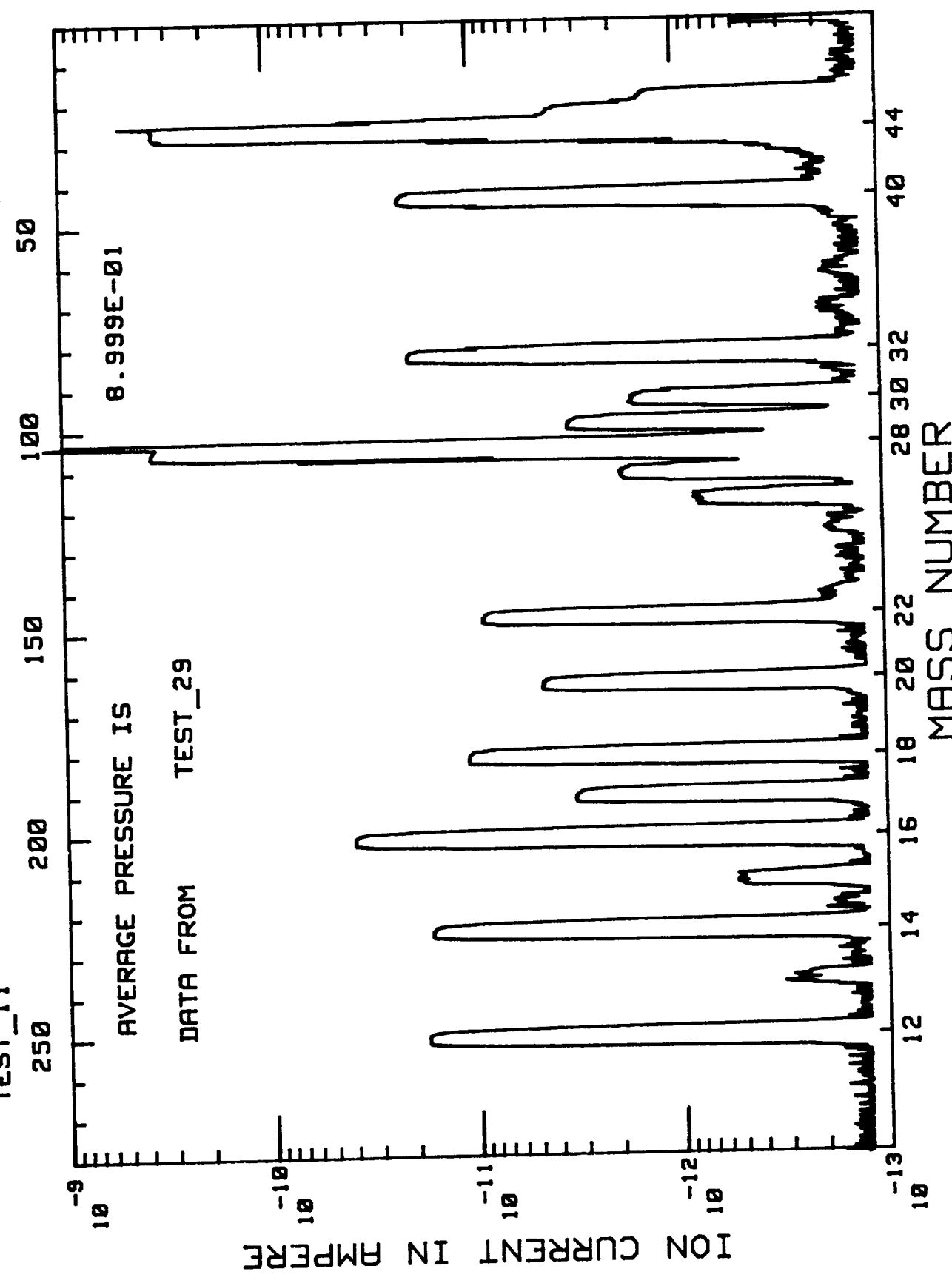
TEST_12

14:33:52

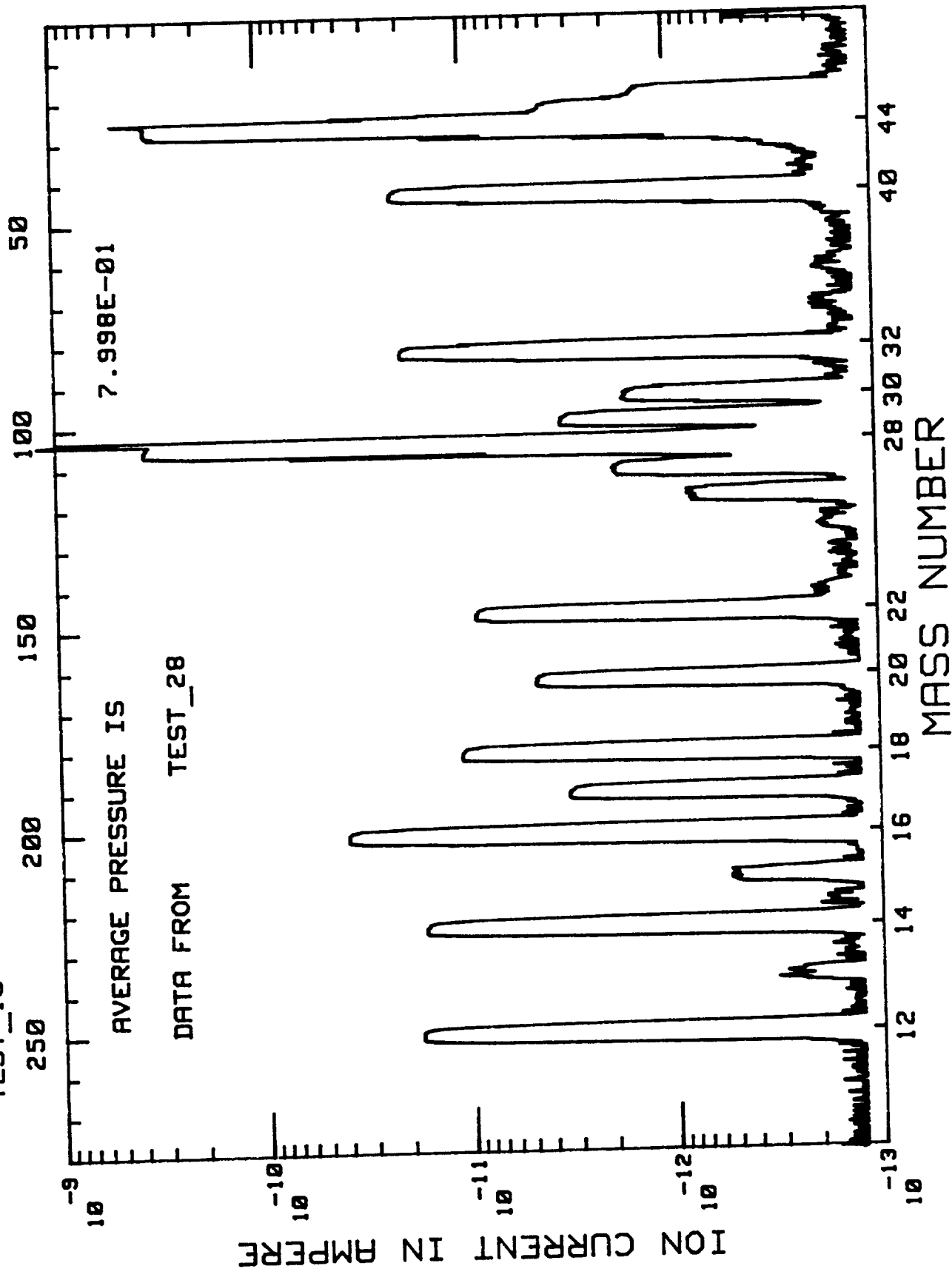
4 Sep 1991



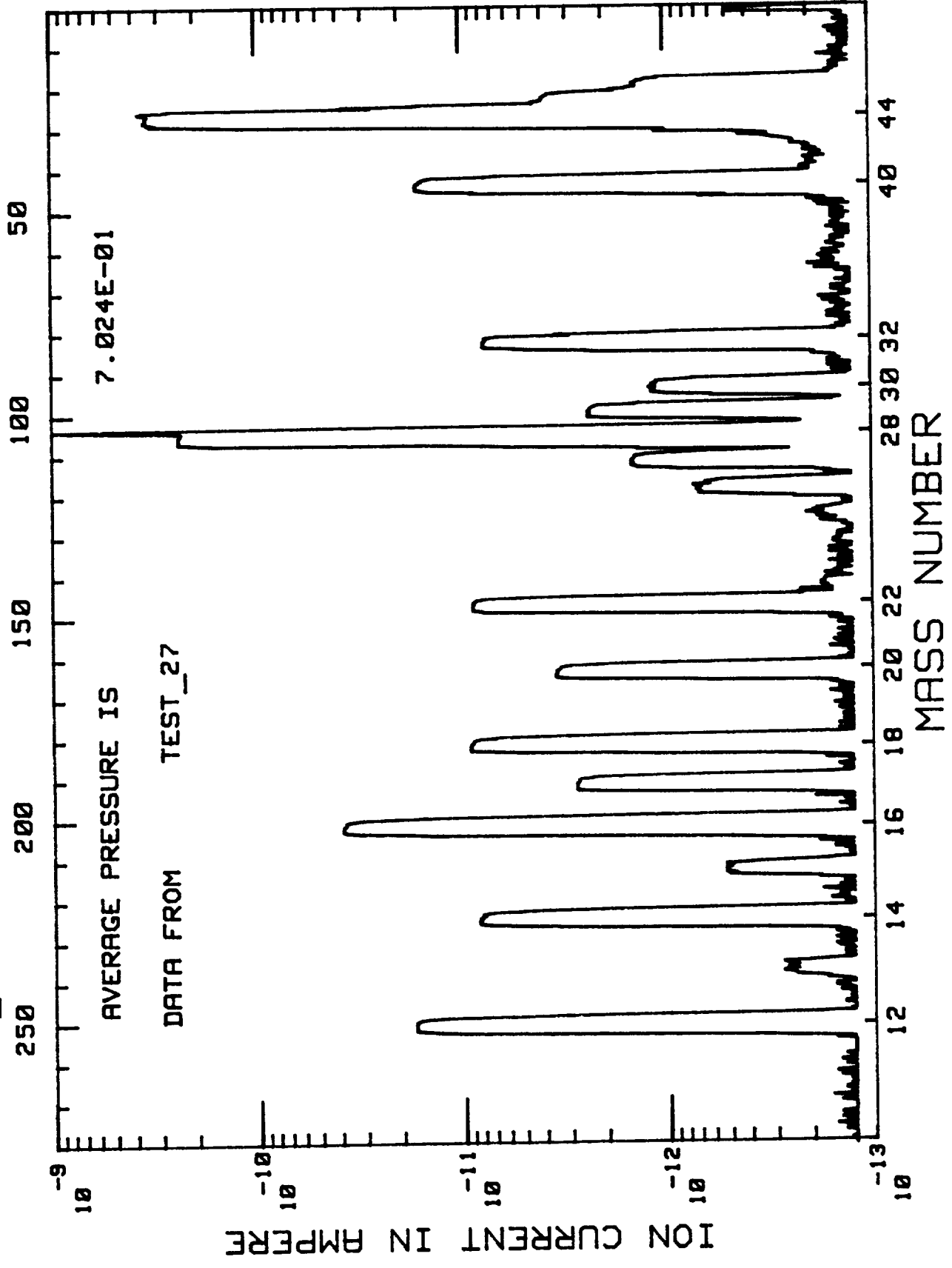
TEST_11 14:29:07 4 Sep 1991



TEST_10 14:26:43 4 Sep 1991



TEST_9 14:23:51 4 Sep 1991



TEST_8 14:21:25 4 Sep 1991

50

100

150

200

250

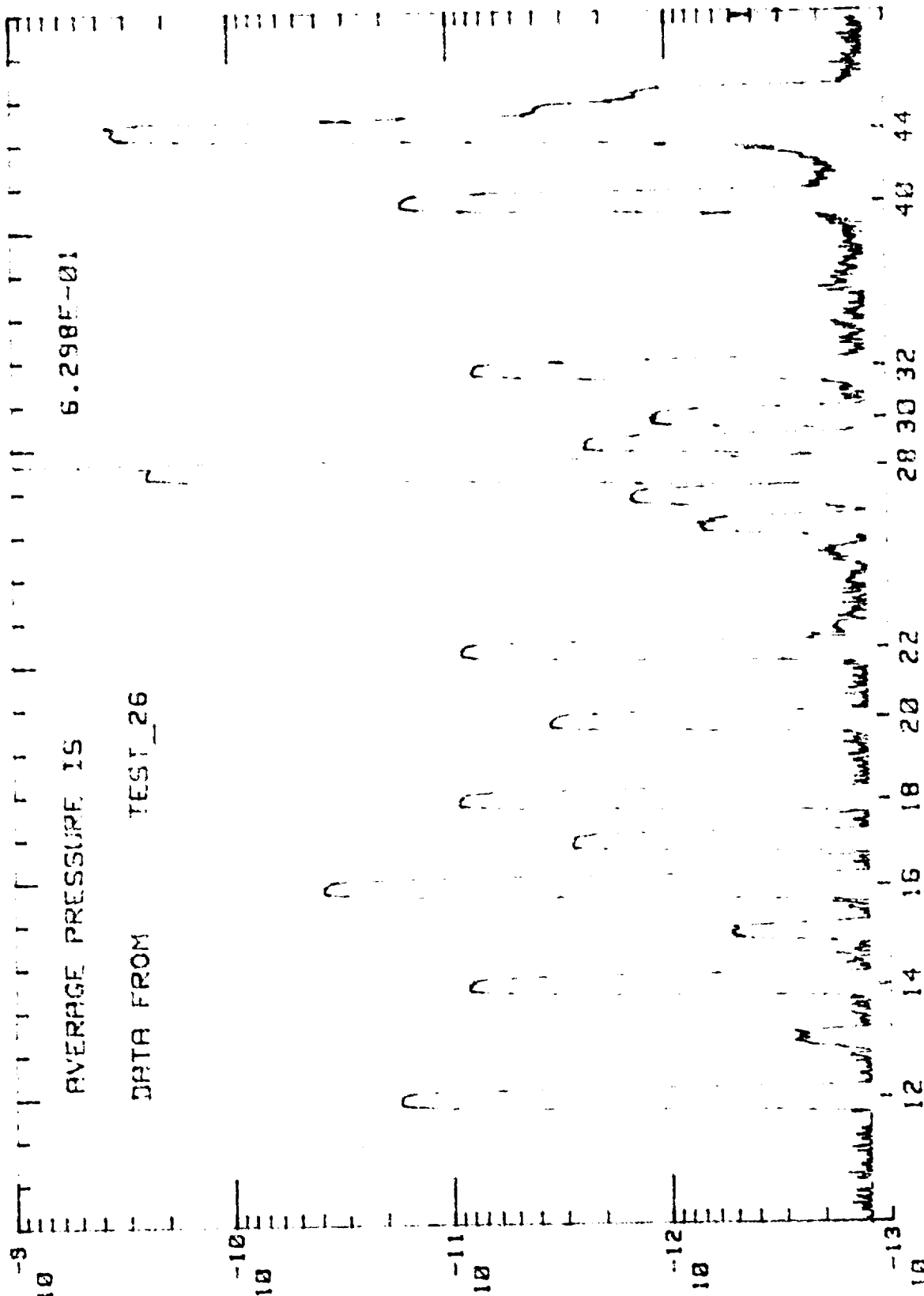
6.298E-01

AVERAGE PRESSURE IS

TEST_26

DATA FROM

ION CURRENT IN AMPERE



MASS NUMBER

TEST_7 14:14:19 4 Sep 1991

50

100

150

200

250

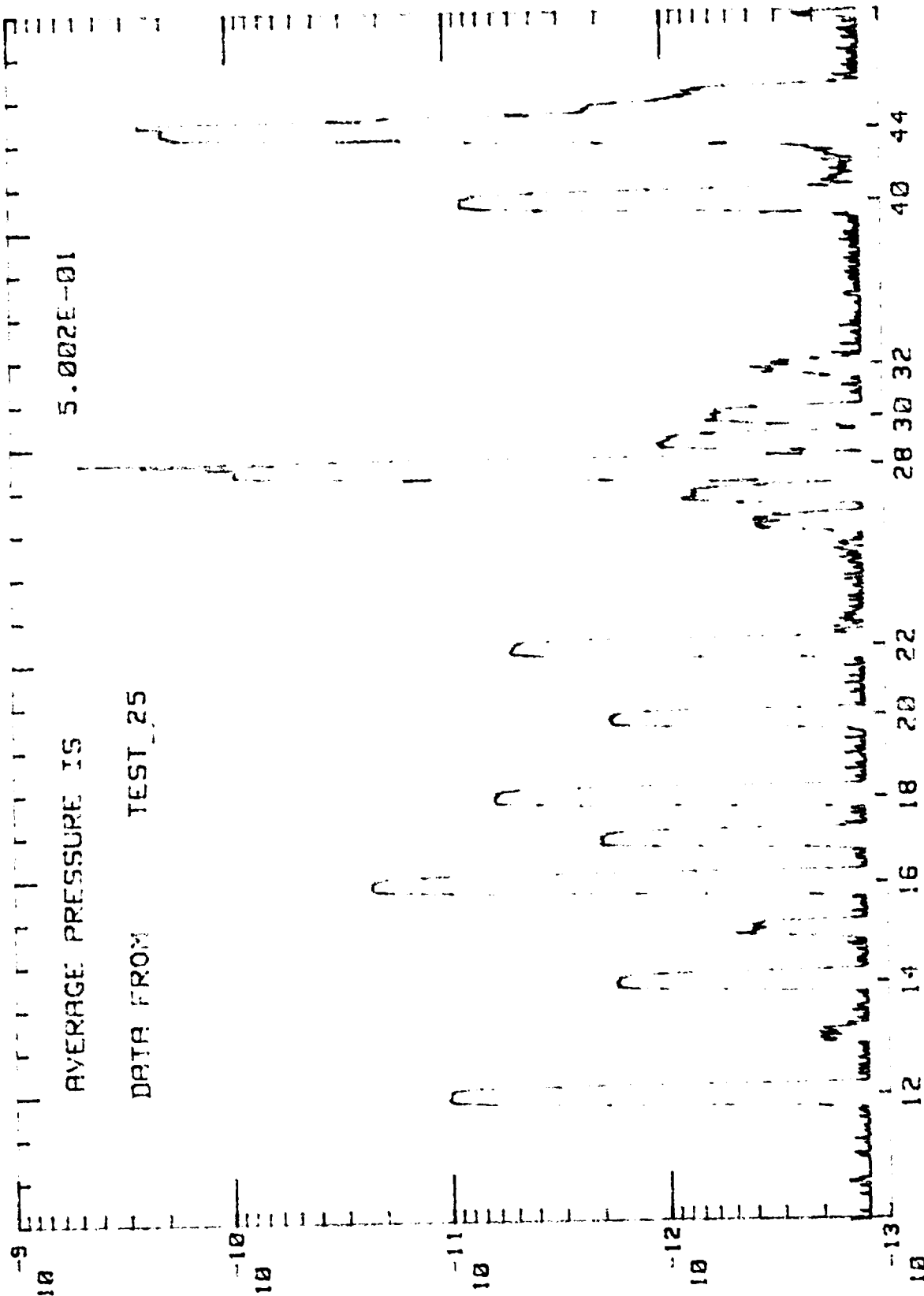
5.002E-01

AVERAGE PRESSURE IS

TEST_25

DATA FROM

ION CURRENT IN AMPERE



MASS NUMBER

TEST_6 14:11:14 4 Sep 1991

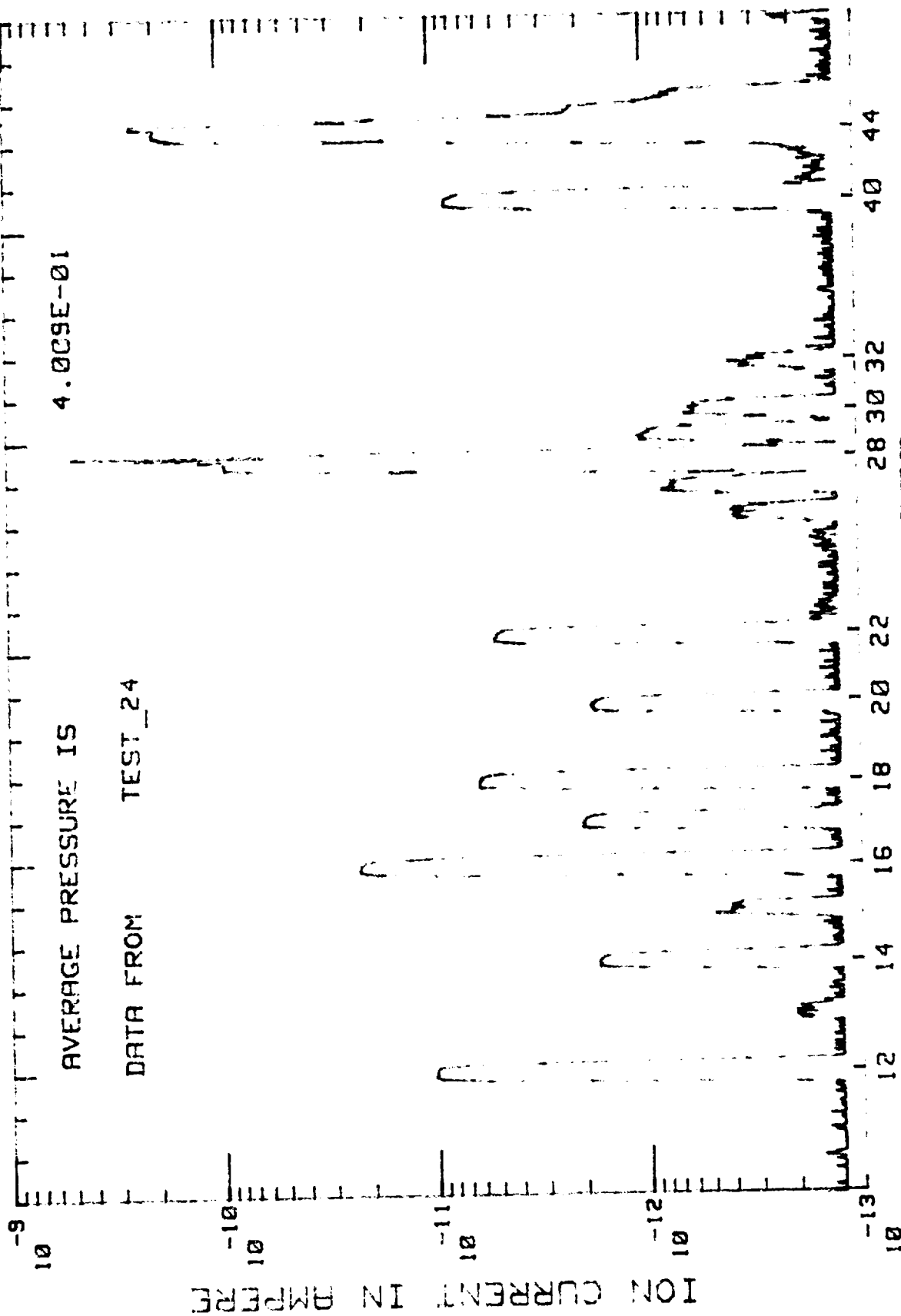
50

100

150

200

250



14:08:03 4 Sep 1991

TEST_5

50

100

150

200

250

3.029E-01

AVERAGE PRESSURE IS

DATA FROM TEST_23

ION CURRENT IN AMPERE

10⁻⁹

10⁻¹⁰

10⁻¹¹

10⁻¹²

10⁻¹³

40 44

28 30 32

22

20

18

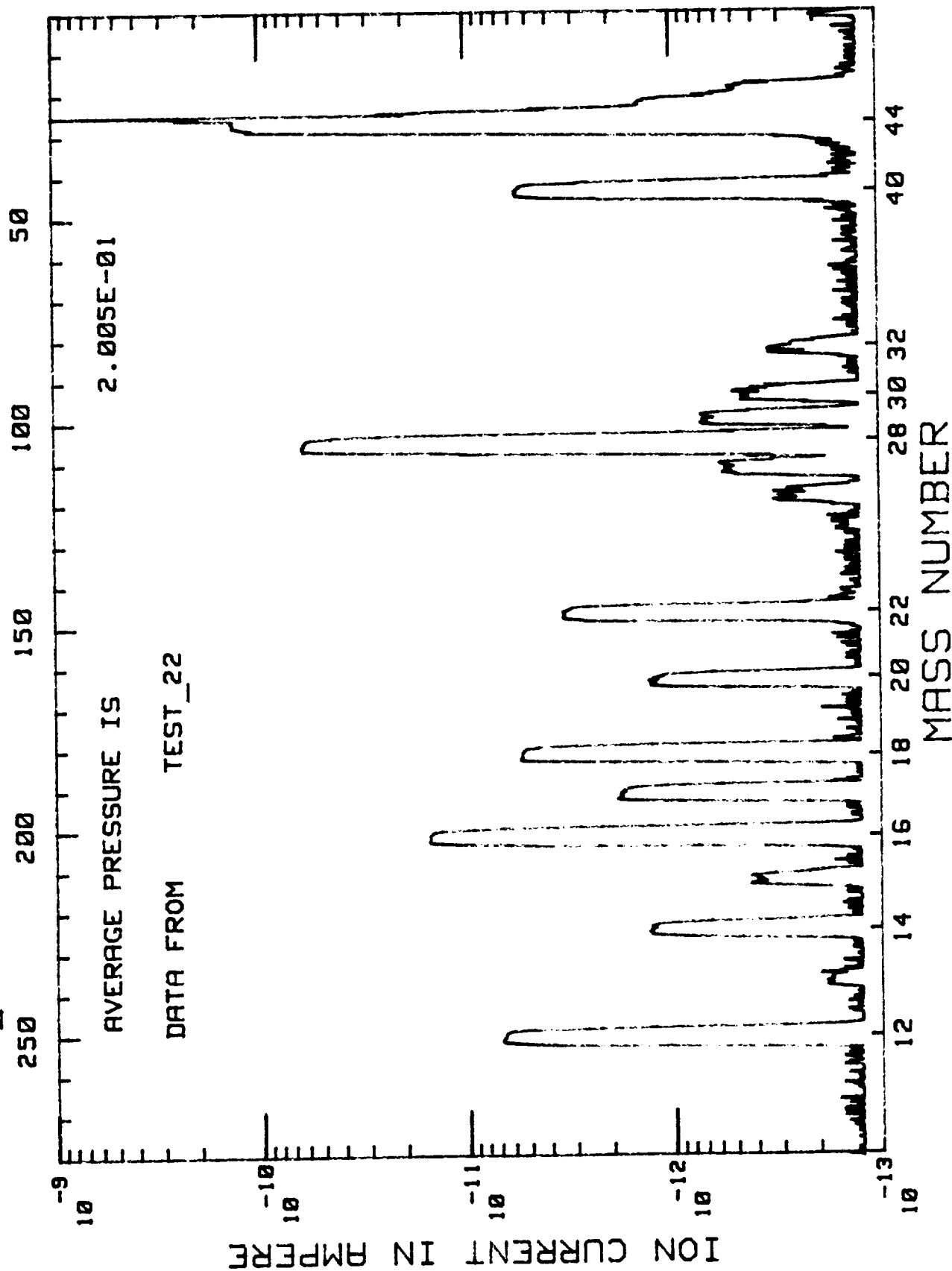
16

14

12

MASS NUMBER

TEST_4 14:05:06 4 Sep 1991



TEST_3 14:00:34 4 Sep 1991

50

100

150

200

250

1.001E-01

AVERAGE PRESSURE IS

DATA FROM TEST_21

ION CURRENT IN AMPERE

10^{-9}

10^{-10}

10^{-11}

10^{-12}

10^{-13}

40 44

28 30 32

20 22

16

14

12

MASS NUMBER

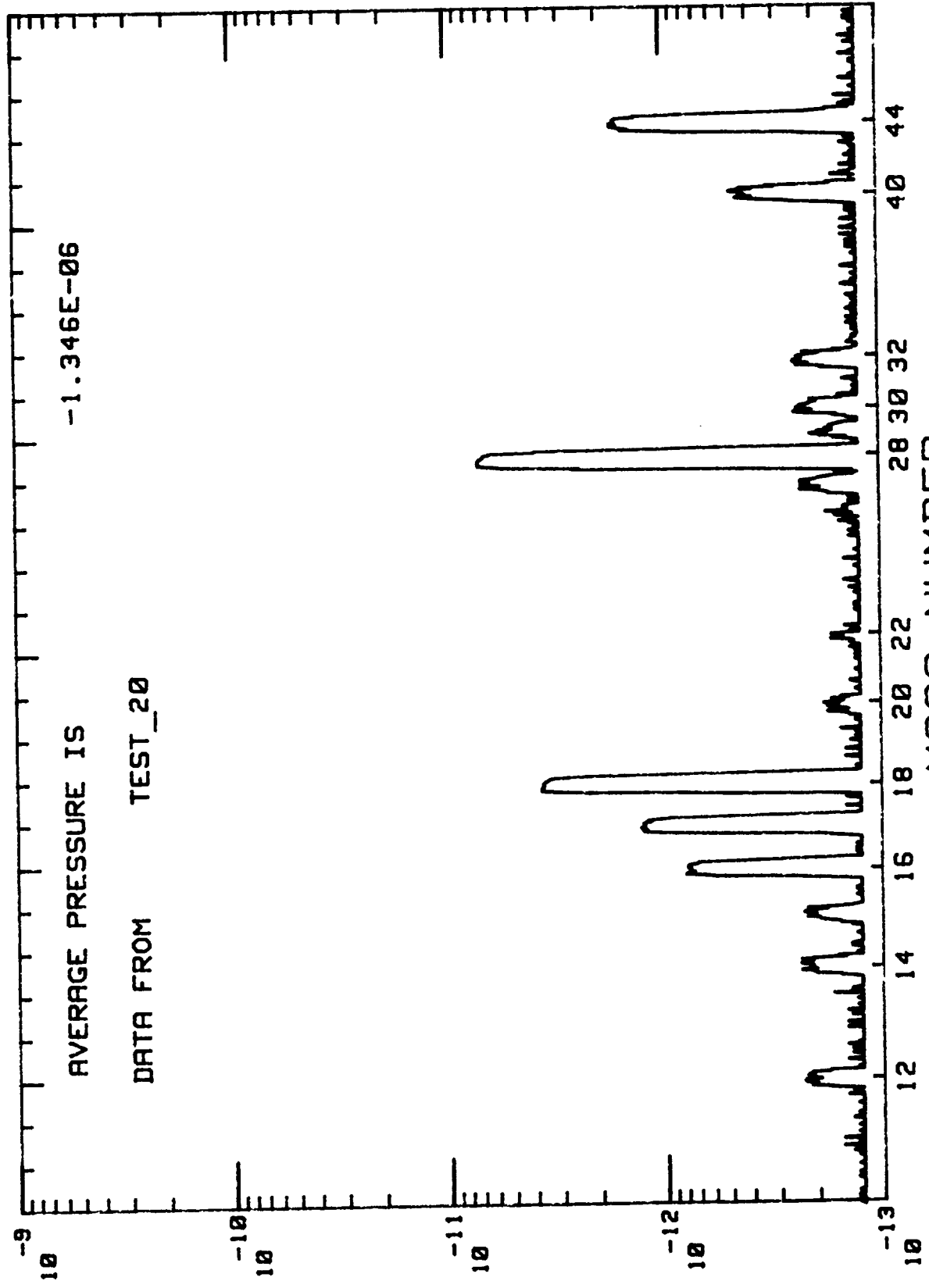
TEST_2 13:32:07 4 Sep 1991

250 200 150 100 50

AVERAGE PRESSURE IS -1.346E-06

DATA FROM TEST_20

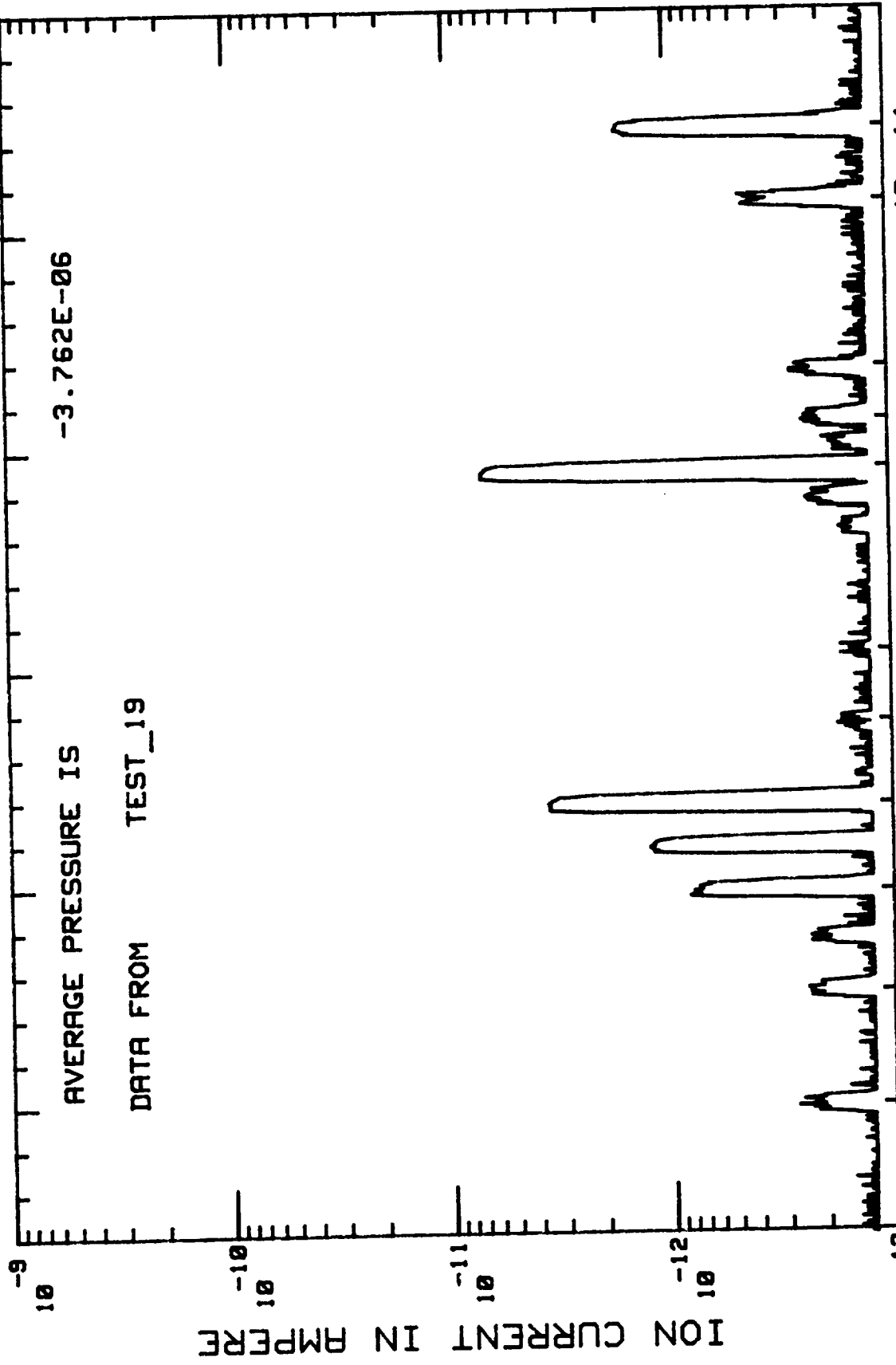
ION CURRENT IN AMPERE



MASS NUMBER

TEST_1 13:23:24 4 Sep 1991

250 200 150 100 50



TEST_18 15:05:32 30 Aug 1991

50

100

150

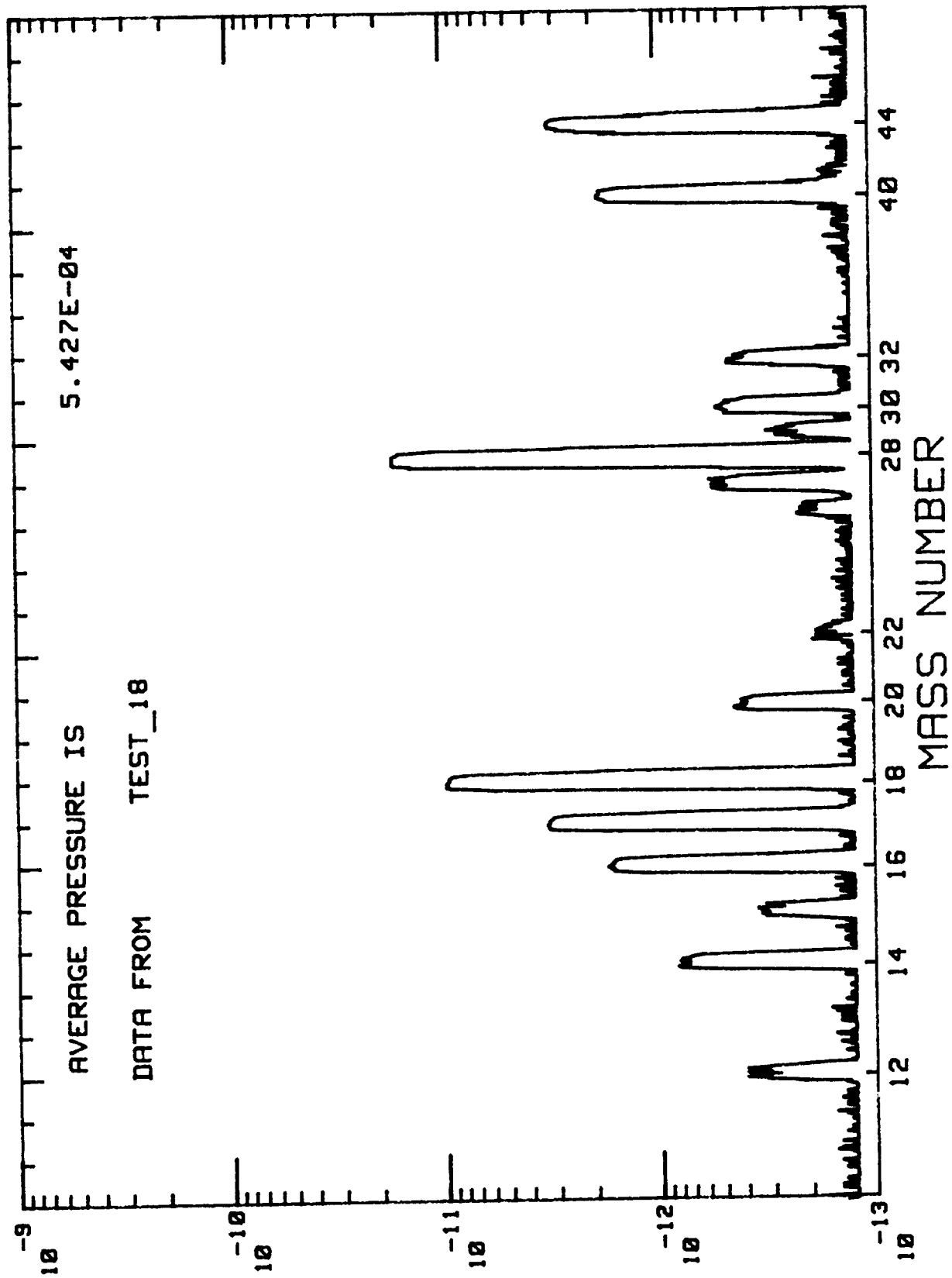
200

250

AVERAGE PRESSURE IS 5.427E-04

DATA FROM TEST_18

ION CURRENT IN AMPERE



TEST_17 15:00:32 30 Aug 1991

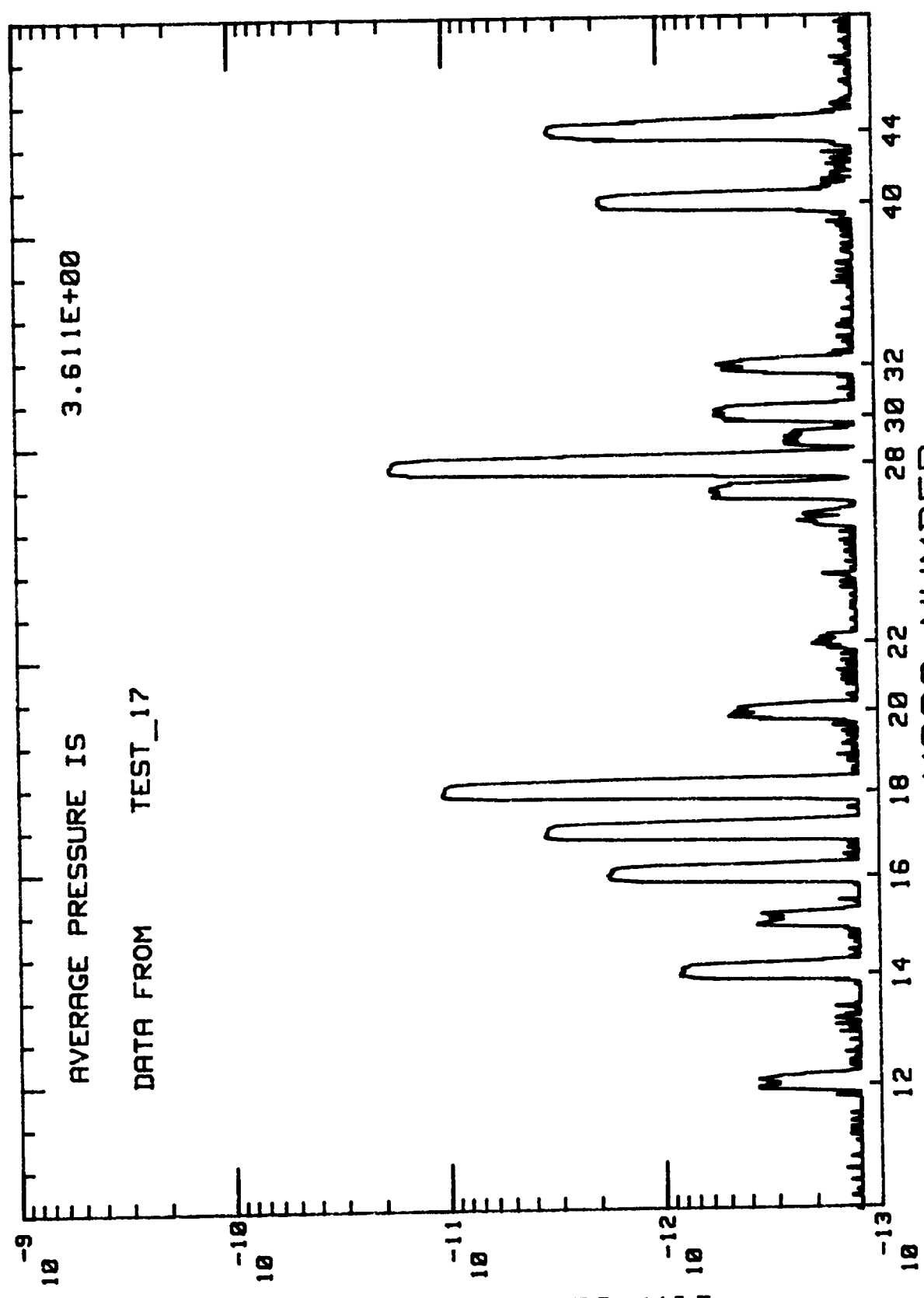
250 200 150 100 50

AVERAGE PRESSURE IS

3.611E+00

DATA FROM TEST_17

ION CURRENT IN AMPERE



MASS NUMBER

TEST_16 14:54:07 30 Aug 1991

50

100

150

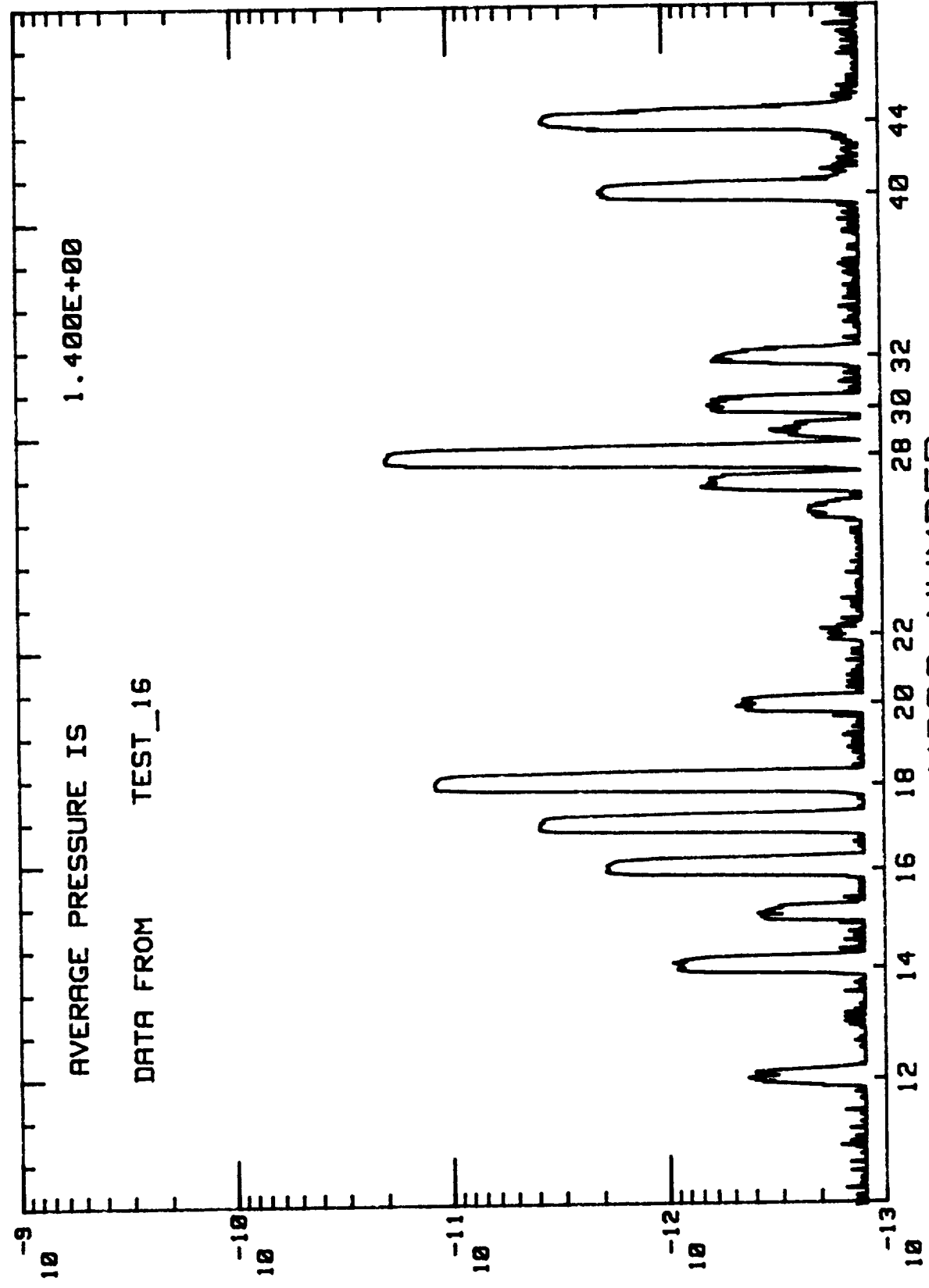
200

250

AVERAGE PRESSURE IS 1.400E+00

DATA FROM TEST_16

ION CURRENT IN AMPERE



MASS NUMBER

TEST_15 14:48:07 30 Aug 1991

50

100

150

200

250

1.401E+00

AVERAGE PRESSURE IS

DATA FROM TEST_15

ION CURRENT IN AMPERE

10⁻⁹

10⁻¹⁰

10⁻¹¹

10⁻¹²

10⁻¹³

40

28

22

18

16

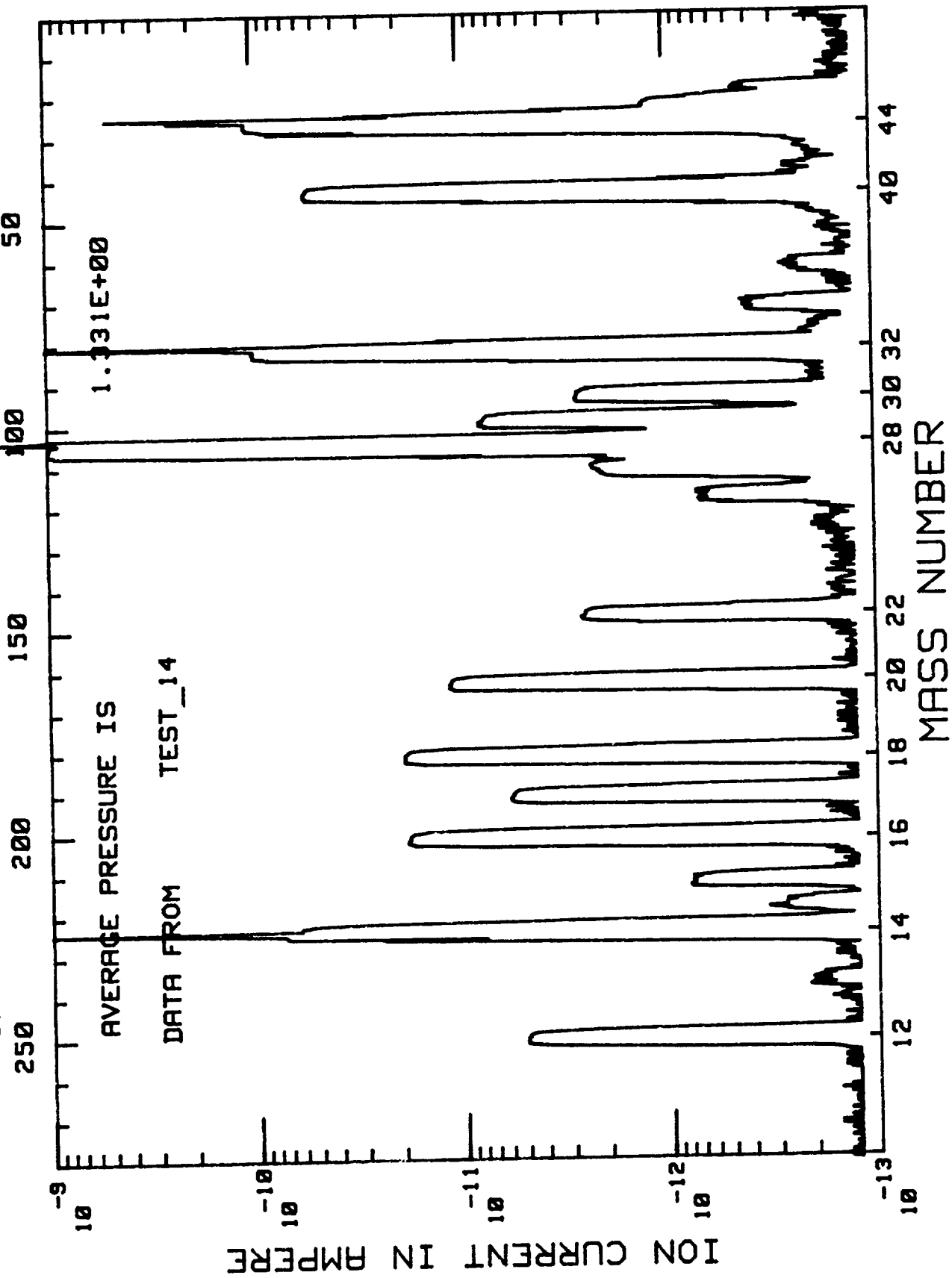
14

12

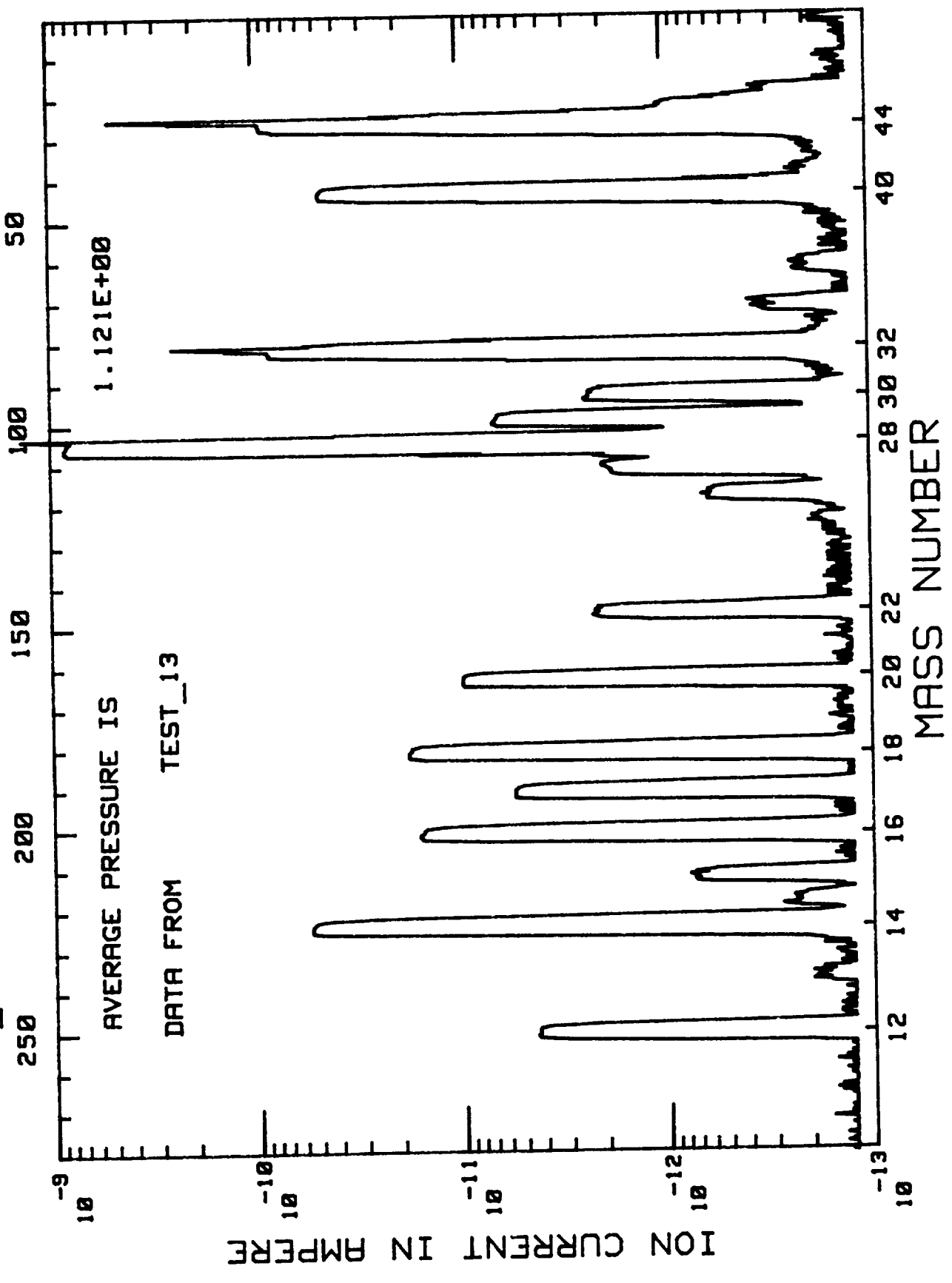
MASS NUMBER

14:45:42 30 Aug 1991

TEST_14



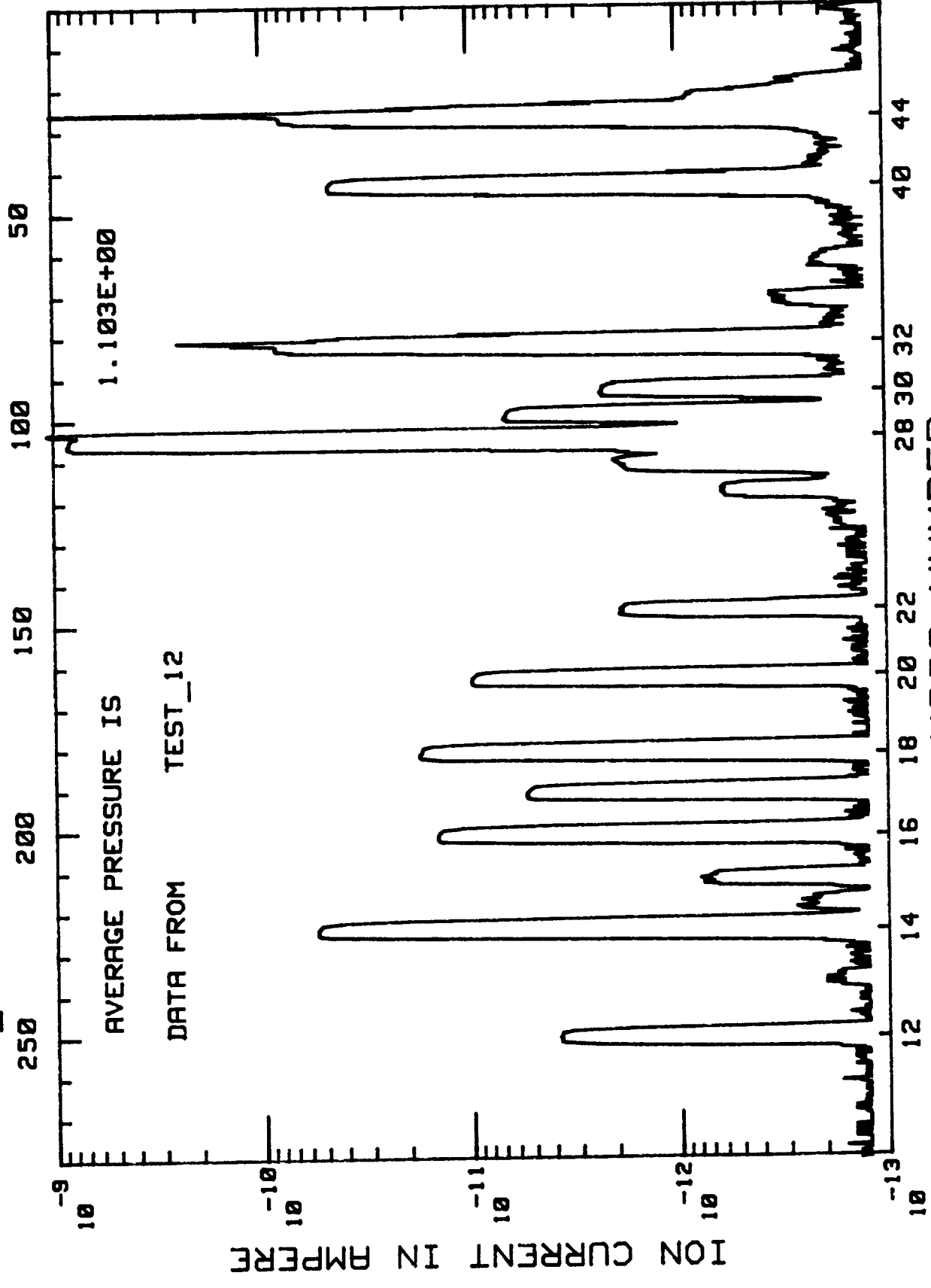
TEST_13 14:43:07 30 Aug 1991



AVERAGE PRESSURE IS

DATA FROM TEST_13

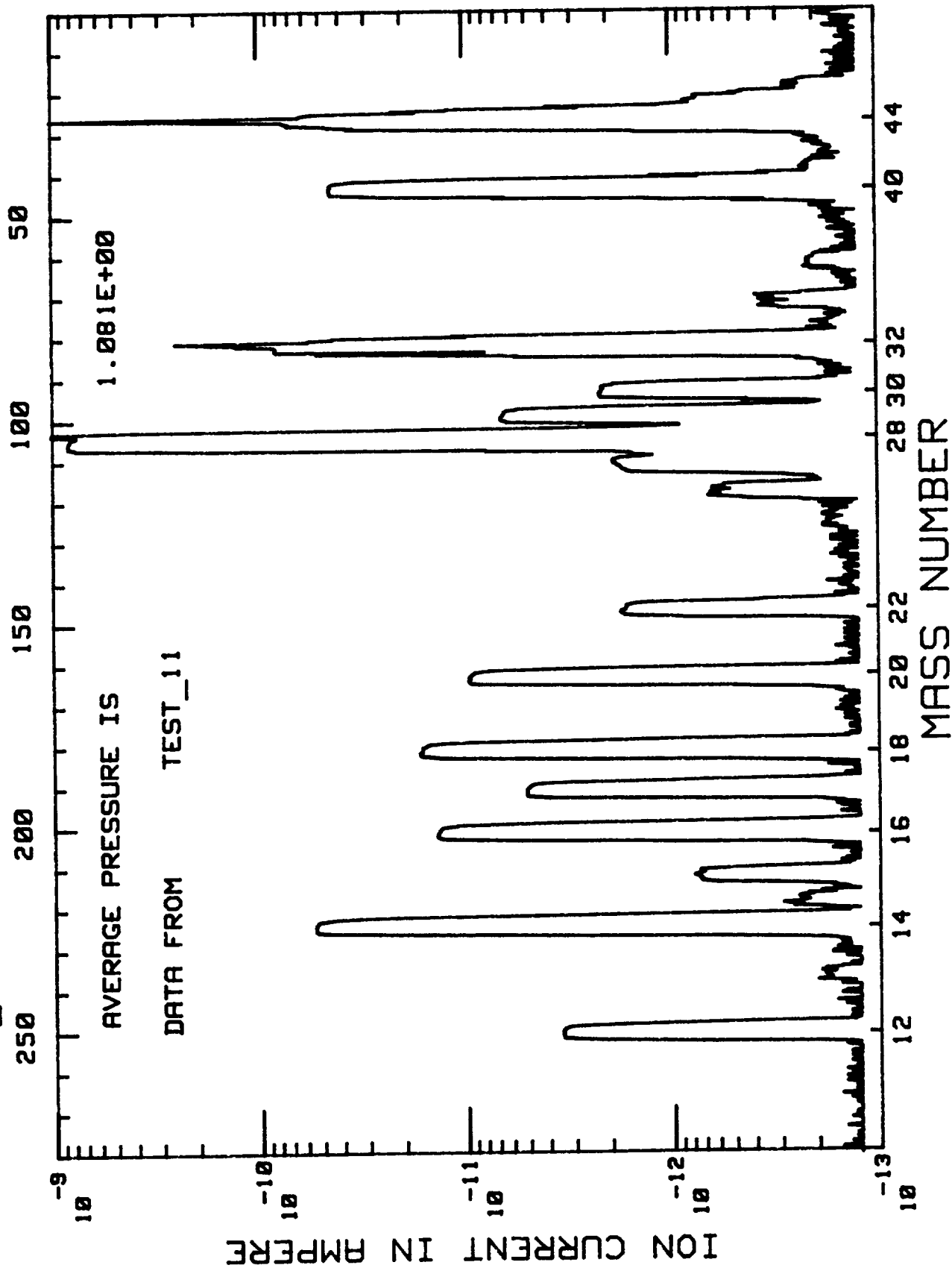
TEST_12 14:40:12 30 Aug 1991



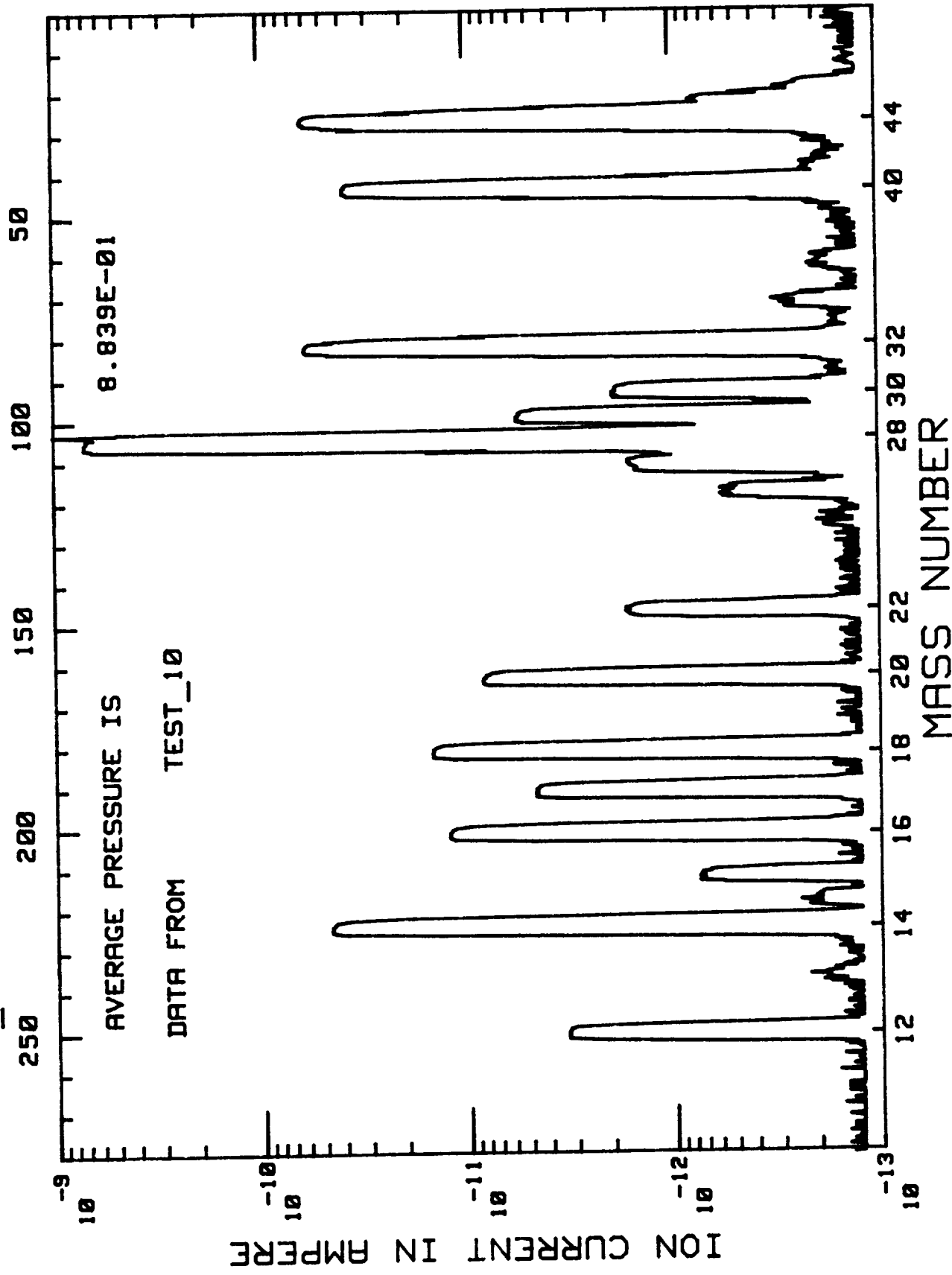
AVERAGE PRESSURE IS

DATA FROM TEST_12

TEST_11 14:36:47 30 Aug 1991



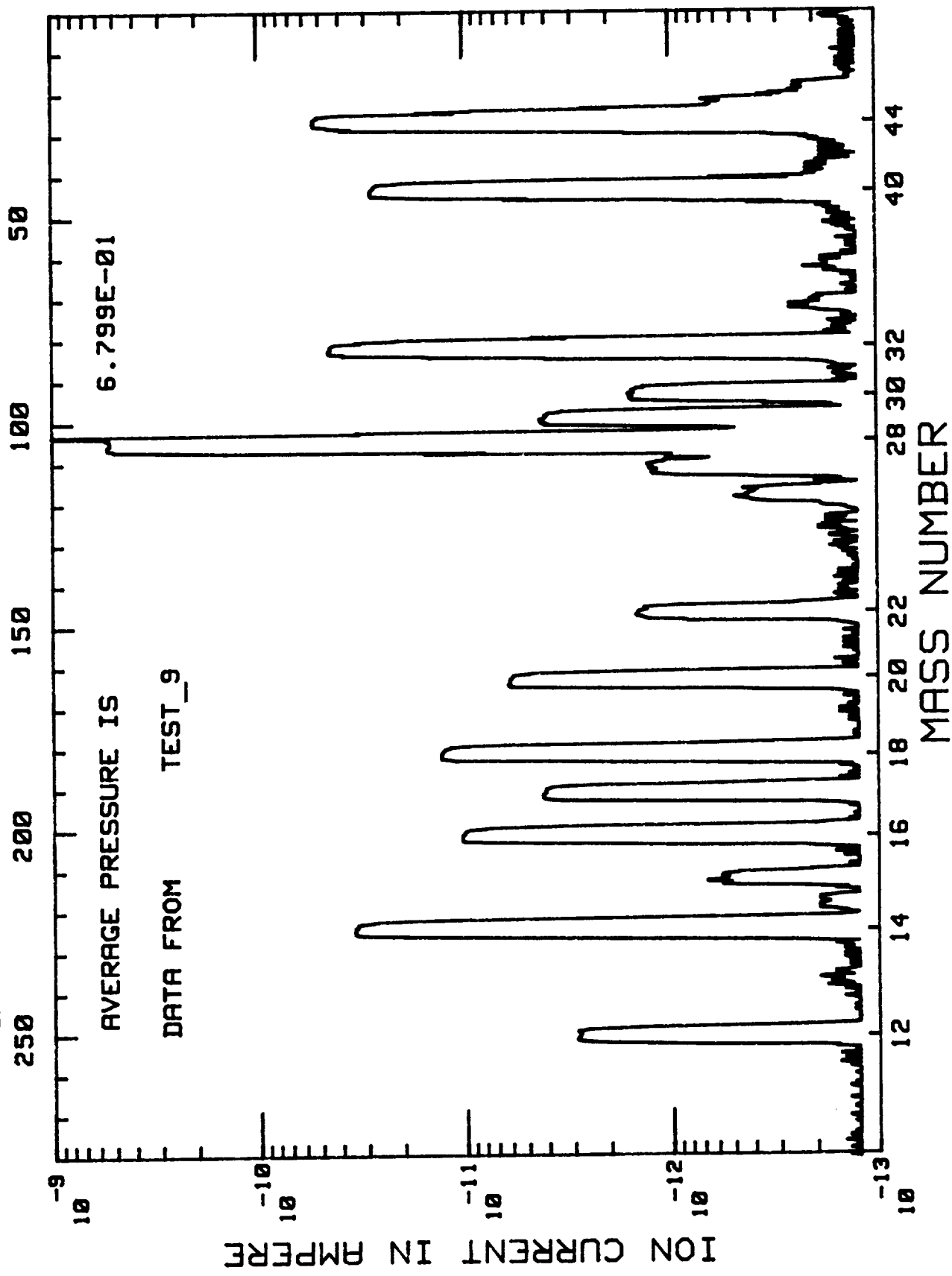
TEST_10 14:33:02 30 Aug 1991



AVERAGE PRESSURE IS

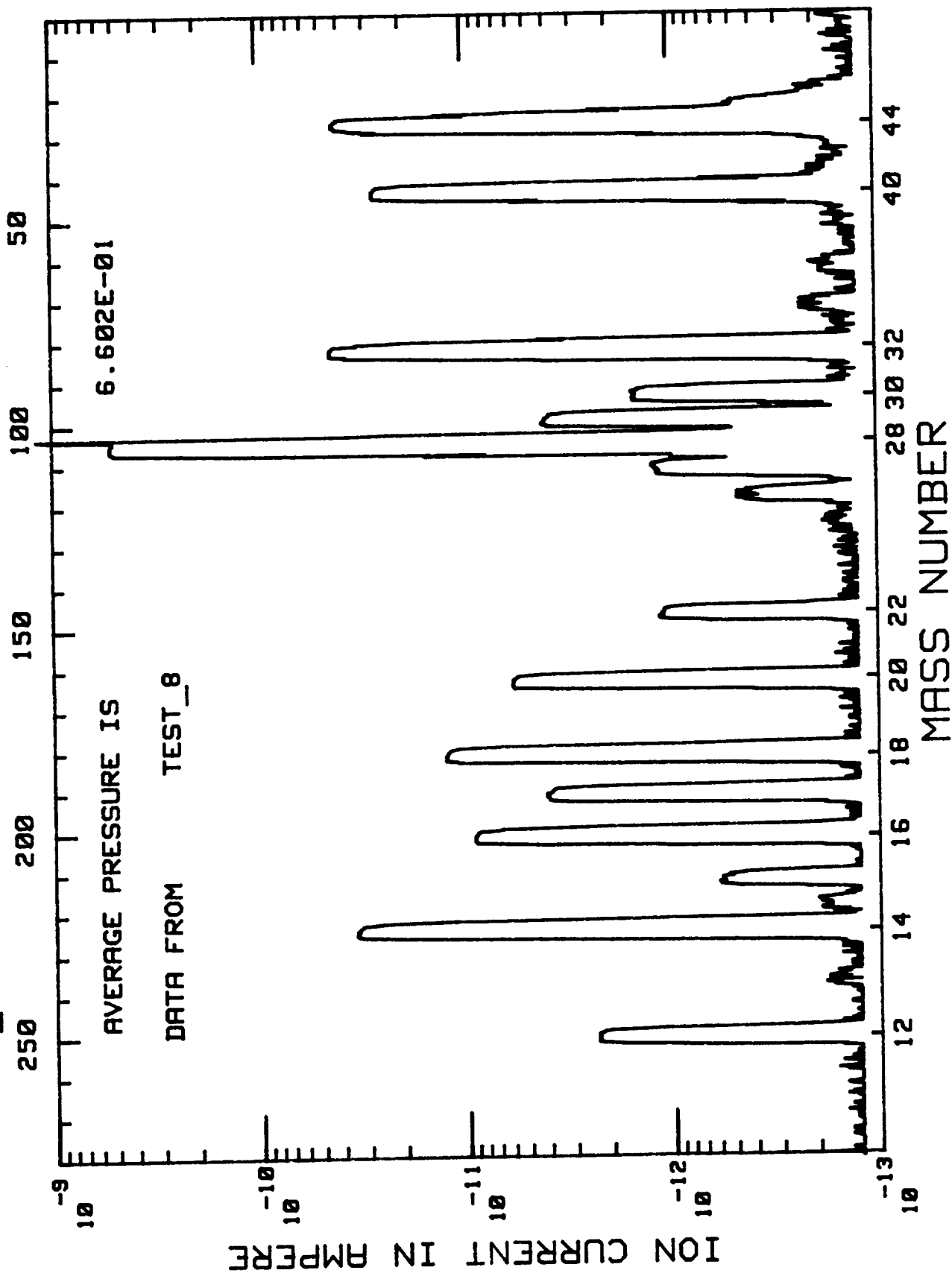
DATA FROM TEST_10

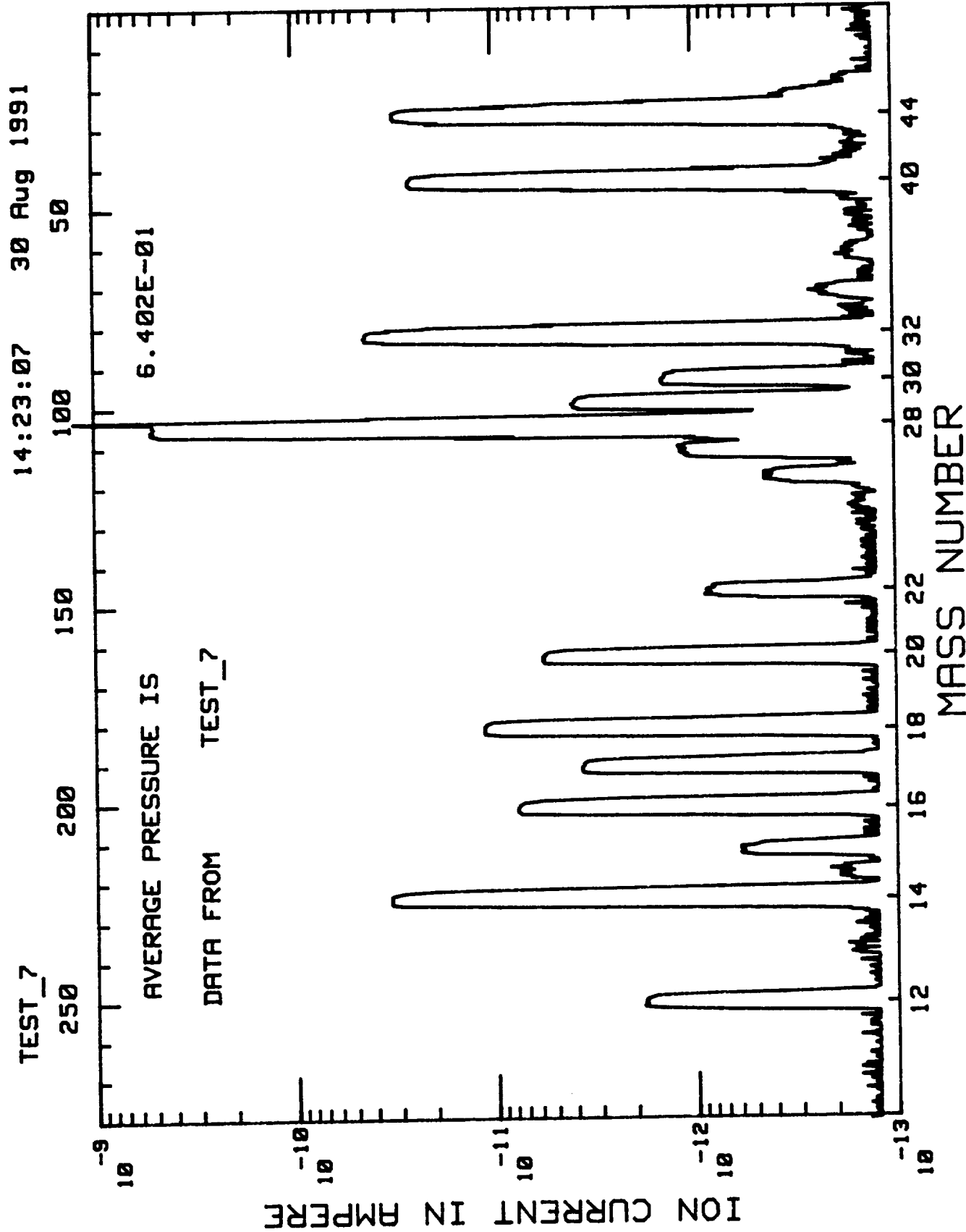
TEST_9 14:30:52 30 Aug 1991



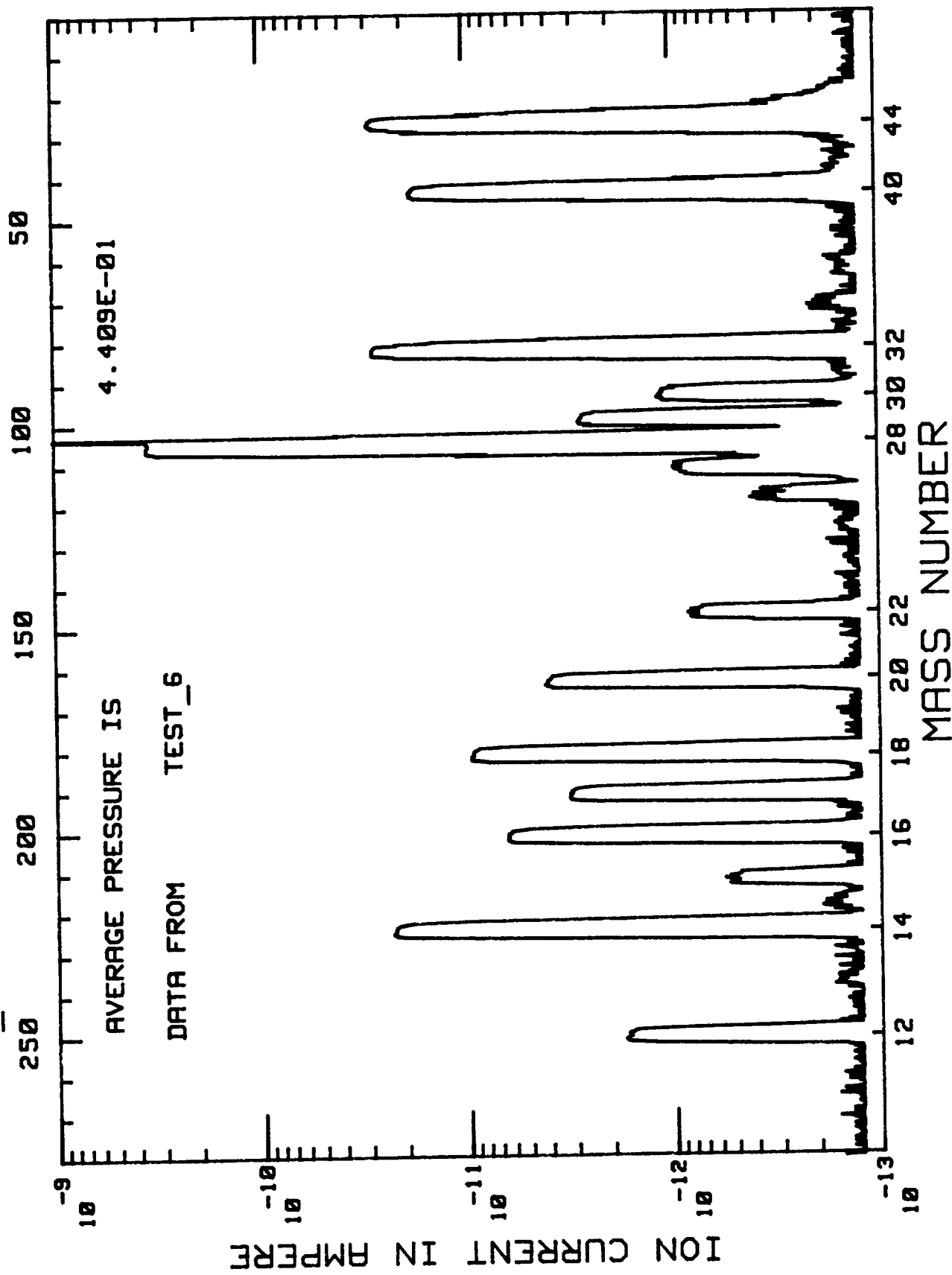
14:28:02 30 Aug 1991

TEST_8





TEST_6 14:16:07 30 Aug 1991



14:13:11 30 Aug 1991

TEST_5

50

100

150

200

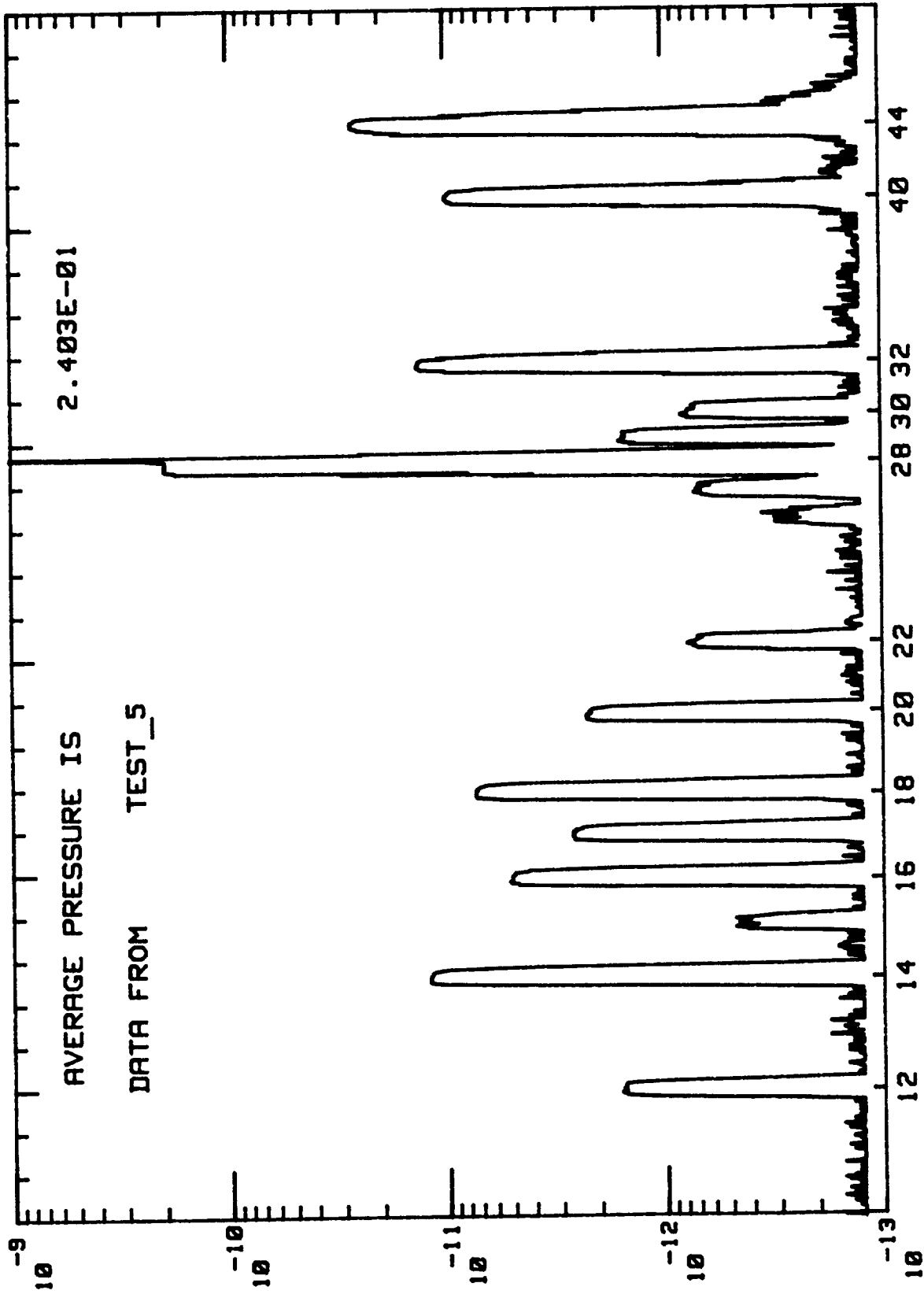
250

AVERAGE PRESSURE IS

2.403E-01

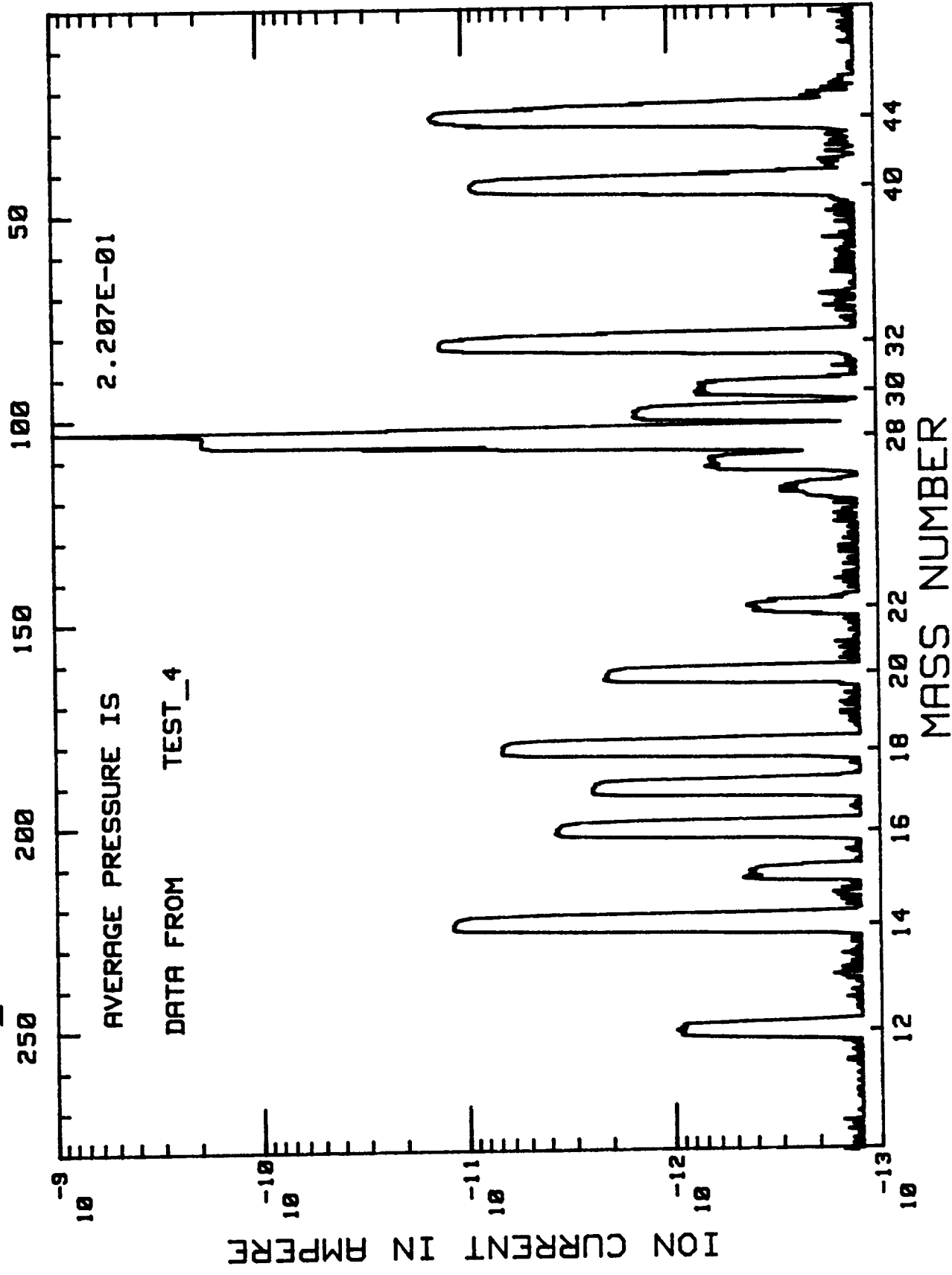
DATA FROM TEST_5

ION CURRENT IN AMPERE

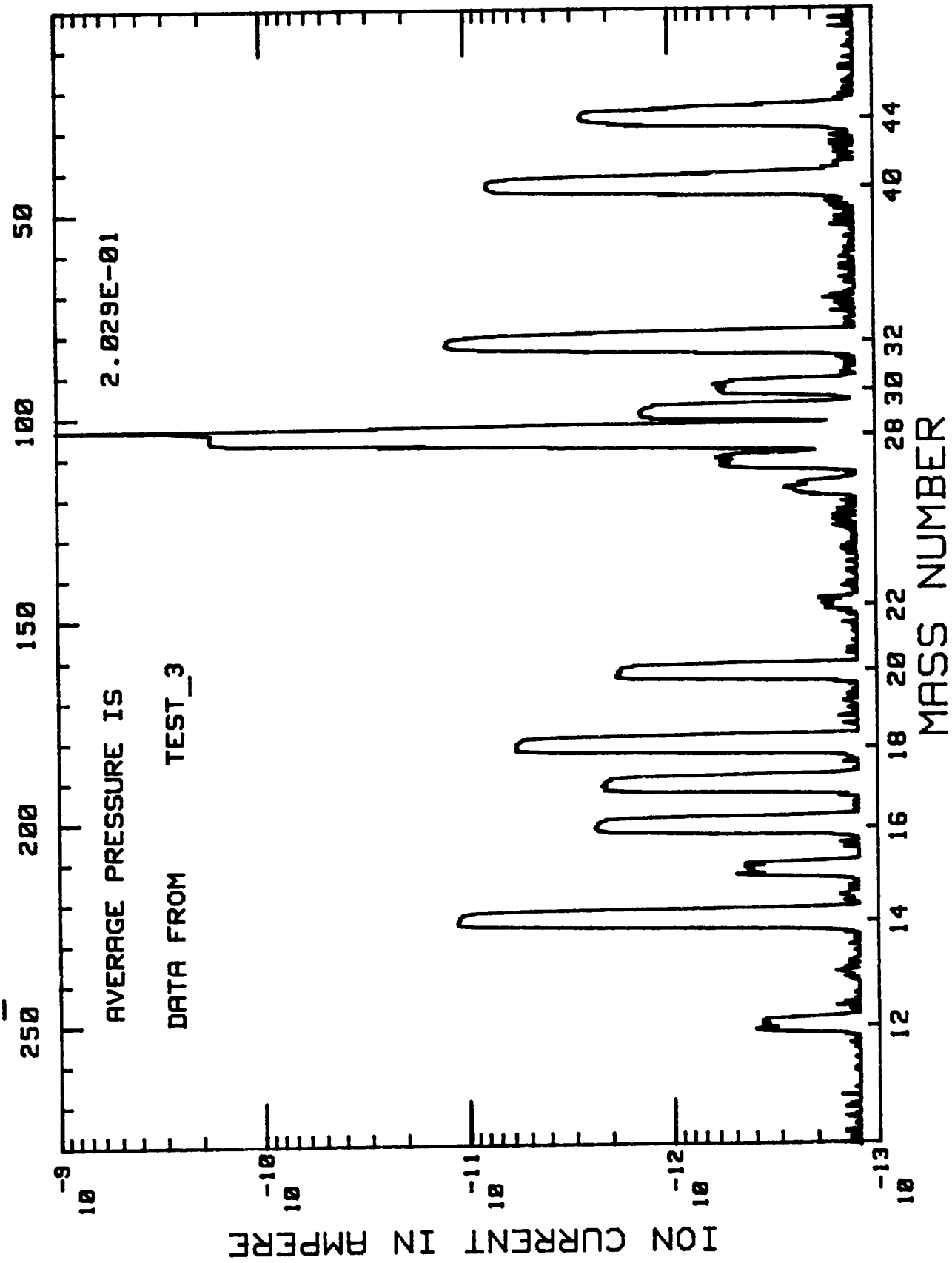


MASS NUMBER

TEST_4 14:10:01 30 Aug 1991



TEST_3 14:05:11 30 Aug 1991



TEST_2 14:03:46 30 Aug 1991

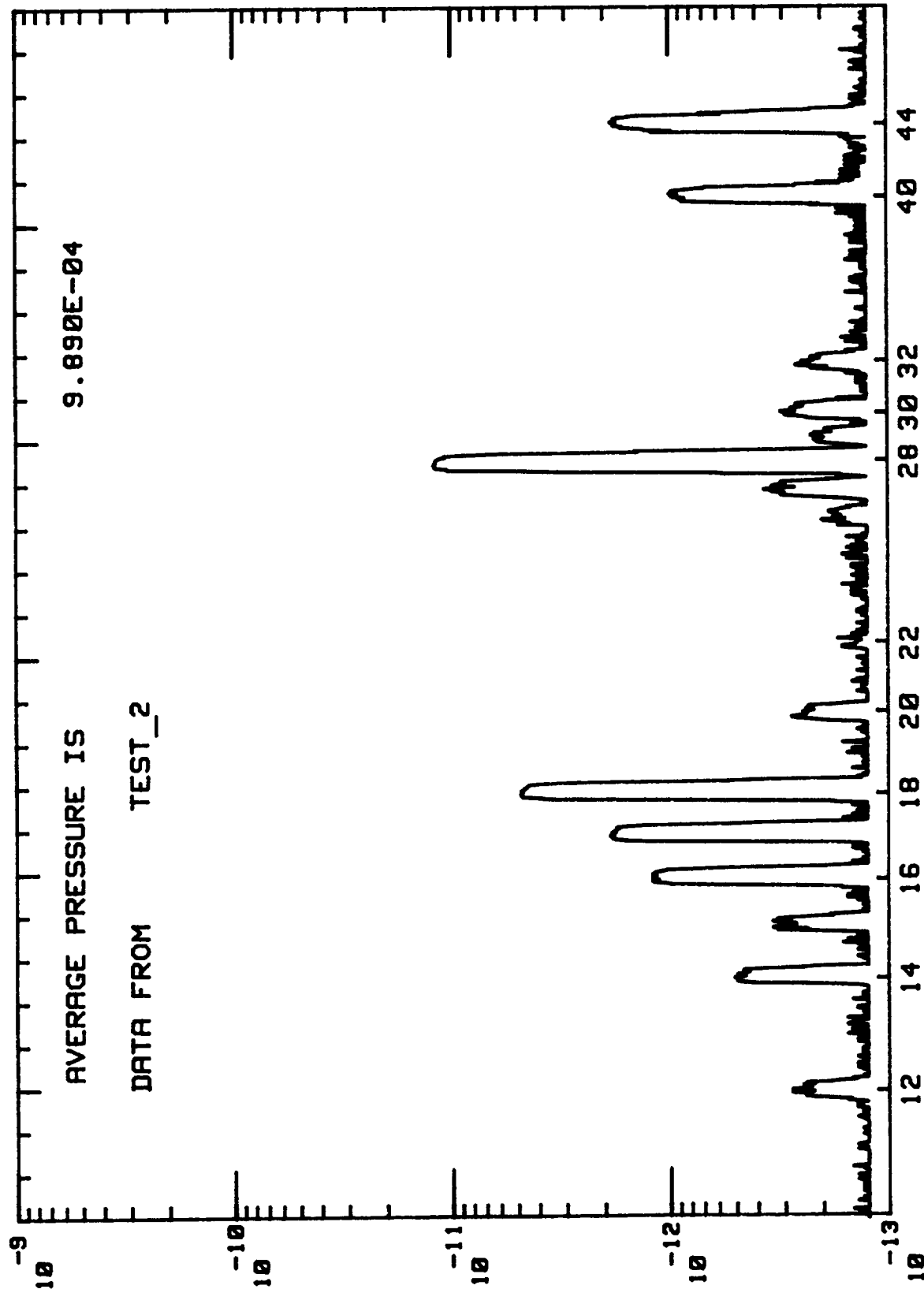
250 200 150 100 50

AVERAGE PRESSURE IS

9.890E-04

DATA FROM TEST_2

ION CURRENT IN AMPERE



MASS NUMBER

TEST_1 14:02:44 30 Aug 1991

50

100

150

200

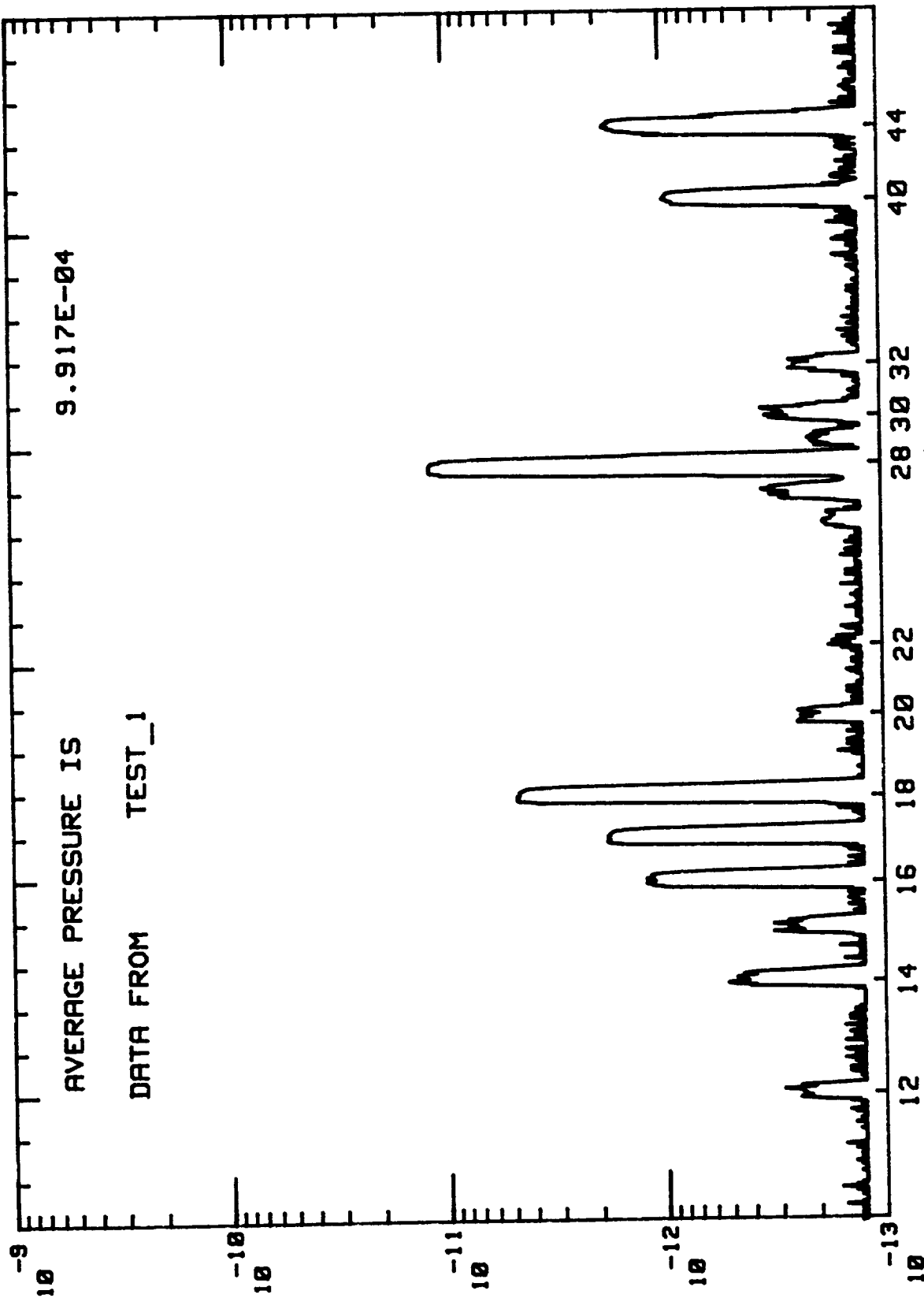
250

9.917E-04

AVERAGE PRESSURE IS

DATA FROM TEST_1

ION CURRENT IN AMPERE



MASS NUMBER

1.0 SUMS Calibration Data

1.5 Printout of Static Calibration Program Results

```

10 ! RE-STORE "STATIC_MIX"
20 OPTION BASE 1
30 DIM Dat(18,12),P(18,3),Aux(18,3)
40 DATA 1.68E-12,8.33E-13,1.32E-13,2.17E-13,1.18E-11,4.26E-14,1.22E-13,4.68E-
12,1.08E-12,3.68E-13,1.36E-13,9.917E-4
50 DATA 1.69E-12,8.53E-13,1.26E-13,1.71E-13,1.18E-11,3.68E-14,1.36E-13,4.68E-
12,1.08E-12,3.76E-13,1.40E-13,9.890E-4
60 DATA 2.57E-12,7.69E-12,1.23E-11,6.90E-13,1.78E-10,6.01E-14,1.74E-12,5.70E-
12,2.25E-12,1.13E-11,2.60E-13,2.029E-1
70 DATA 1.41E-11,9.05E-12,1.30E-11,7.60E-13,1.90E-10,2.94E-13,2.00E-12,6.67E-
12,3.61E-12,1.18E-11,8.29E-13,2.207E-1
80 DATA 2.67E-11,9.80E-12,1.33E-11,8.25E-13,1.97E-10,6.32E-13,2.17E-12,7.32E-
12,4.99E-12,1.20E-11,1.46E-12,2.403E-1
90 DATA 2.88E-11,1.82E-11,2.81E-11,1.42E-12,3.57E-10,6.98E-13,4.00E-12,9.49E-
12,6.32E-12,2.31E-11,1.60E-12,4.409E-1
100 DATA 3.11E-11,2.62E-11,4.38E-11,1.33E-12,5.08E-10,7.56E-13,5.67E-12,1.13E-
11,7.69E-12,3.36E-11,1.71E-12,6.402E-1
110 DATA 4.20E-11,2.72E-11,4.45E-11,1.40E-12,5.24E-10,1.01E-12,5.83E-12,1.25E-
11,9.05E-12,3.46E-11,2.23E-12,6.602E-1
120 DATA 5.34E-11,2.81E-11,4.53E-11,1.43E-12,5.36E-10,1.34E-12,5.98E-12,1.30E-
11,1.03E-11,3.46E-11,2.77E-12,6.799E-1
130 DATA 6.14E-11,3.86E-11,6.04E-11,1.77E-12,7.14E-10,1.54E-12,8.31E-12,1.48E-
11,1.23E-11,4.65E-11,3.22E-12,8.839E-1
140 DATA 7.43E-11,4.45E-11,8.32E-11,2.05E-12,8.41E-10,1.63E-12,9.55E-12,1.65E-
11,1.38E-11,5.44E-11,3.35E-12,1.081
150 DATA 7.97E-11,4.65E-11,8.52E-11,2.17E-12,8.53E-10,1.79E-12,9.80E-12,1.77E-
11,1.45E-11,5.54E-11,3.67E-12,1.103
160 DATA 9.11E-11,4.75E-11,8.52E-11,2.23E-12,8.57E-10,2.12E-12,9.80E-12,1.82E-
11,1.60E-11,5.54E-11,4.25E-12,1.121
170 DATA 1.07E-10,5.54E-11,9.91E-11,2.60E-12,1.00E-9,2.50E-12,1.15E-11,1.92E-
11,1.86E-11,7.33E-11,4.96E-12,1.331
180 DATA 4.53E-12,2.09E-12,5.89E-13,6.47E-13,2.29E-11,8.14E-14,4.50E-13,1.53E-
11,2.08E-13,9.61E-13,3.57E-13,1.401 ! NOTE ALL VALVE CLOSED
190 DATA 3.50E-12,1.84E-12,4.53E-13,4.88E-13,1.96E-11,5.62E-14,3.33E-13,1.18E-
11,1.79E-12,7.90E-13,2.83E-13,1.400 ! VALVE CLOSED DEL T= 6MINUTES
200 DATA 3.13E-12,1.77E-12,3.88E-13,4.26E-13,1.82E-11,6.59E-14,3.49E-13,1.05E-
11,1.67E-12,7.21E-13,2.44E-13,3.611E-3 ! RANGE AND INLET OPEN DEL T 11.5MIN
210 DATA 3.04E-12,1.72E-12,3.33E-13,3.88E-13,1.72E-11,6.20E-14,3.14E-13,9.80E-
12,1.59E-12,6.94E-13,2.67E-13,5.427E-4 ! RANGE INLET OPEN DEL T= 16.5 MIN
211 REM 44,40,32,30,28,22,20,18,16,14,12,TOTAL PRESSURE
220 READ Dat(*)
230 DATA .04,-.15,-.35 ! ION PUMP ,.1PSI ,1.0 PSI
240 DATA .04,-.15,-.35
250 DATA .15,.047,-.32
260 DATA .17,.064,-.33
270 DATA .19,.083,-.326
280 DATA .33,.28,-.300
290 DATA .48,.476,-.288
300 DATA .5,.497,-.286
310 DATA .51,516,-.285
320 DATA .68,.718,-.265
330 DATA .79,.91,-.246
340 DATA .81,.932,-.244
350 DATA .81,.950,-.242
360 DATA .951,.154,-.222
370 DATA .06,1.222,-.215
380 DATA .05,1.220,-.226
390 DATA .05,-.146,-.349
400 DATA .05,-.151,-.350

```

static mix exp 3

```

410 READ Aux(*)
420 P(3,1)=Dat(3,12)*.8011      ! NITROGEN
430 P(3,2)=Dat(3,12)*.1989      ! OXYGEN
440 P(3,3)=0                    ! CARBON DIOXIDE
450 P(4,1)=P(3,1)
460 P(4,2)=P(3,2)
470 P(4,3)=Dat(4,12)-Dat(3,12)
480 P(5,1)=P(4,1)
490 P(5,2)=P(4,2)
500 P(5,3)=P(4,3)+(Dat(5,12)-Dat(4,12))
510 P(6,1)=P(5,1)+(Dat(6,12)-Dat(5,12))* .8011
520 P(6,2)=P(5,2)+(Dat(6,12)-Dat(5,12))* .1989
530 P(6,3)=P(5,3)
540 P(7,1)=P(6,1)+(Dat(7,12)-Dat(6,12))* .8011
550 P(7,2)=P(6,2)+(Dat(7,12)-Dat(6,12))* .1989
560 P(7,3)=P(6,3)
570 P(8,1)=P(7,1)
580 P(8,2)=P(7,2)
590 P(8,3)=P(7,3)+(Dat(8,12)-Dat(7,12))
600 P(9,1)=P(8,1)
610 P(9,2)=P(8,2)
620 P(9,3)=P(8,3)+(Dat(9,12)-Dat(8,12))
630 P(10,1)=P(9,1)+(Dat(10,12)-Dat(9,12))* .8011
640 P(10,2)=P(9,2)+(Dat(10,12)-Dat(9,12))* .1989
650 P(10,3)=P(9,3)
660 P(11,1)=P(10,1)+(Dat(11,12)-Dat(10,12))* .8011
670 P(11,2)=P(10,2)+(Dat(11,12)-Dat(10,12))* .1989
680 P(11,3)=P(10,3)
690 P(12,1)=P(11,1)
700 P(12,2)=P(11,2)
710 P(12,3)=P(11,3)+(Dat(12,12)-Dat(11,12))
720 P(13,1)=P(12,1)
730 P(13,2)=P(12,2)
740 P(13,3)=P(12,3)+(Dat(13,12)-Dat(12,12))
750 P(14,1)=P(13,1)+(Dat(14,12)-Dat(13,12))* .8011
760 P(14,2)=P(13,2)+(Dat(14,12)-Dat(13,12))* .1989
770 P(14,3)=P(13,3)
771 IMAGE 4X,MD.DDDE,4X,MD.DDDE,4X,MD.DDDE,4X,MD.DDDE
780 FOR I=3 TO 14
781 Pt=P(I,1)+P(I,2)+P(I,3)
790 PRINT USING 771;P(I,1),P(I,2),P(I,3),Pt
800 NEXT I
801 PAUSE
810 IMAGE 12A
820 PRINT USING 810;"      S44","      S40","      S32","      S28","      S14","      S12"
830 IMAGE 3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
840 St=4
850 Ed=14
860 FOR I=St TO Ed
870 S44=(Dat(I,1)-Dat(2,1))/P(I,3)
880 S1=S44+S1
890 S40=Dat(I,2)/Dat(I,12)
900 S2=S40+S2
910 S32=(Dat(I,3)-Dat(2,3))/P(I,2)
920 S3=S32+S3
930 S28=(Dat(I,5)-.28*Dat(I,1)-Dat(2,5))/P(I,1)
940 S5=S28+S5
950 S14=(Dat(I,10))/P(I,1)
960 S10=S14+S10
970 S12=(Dat(I,11)-Dat(2,11))/P(I,3)

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State over 283


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980 S11=S11+S12
990 PRINT USING 830;S44,S40,S32,S28,S14,S12
1000 NEXT I
1010 PRINT "AVERAGE SENS  IS"
1020 Di=Ed-St+1
1030 PRINT USING 830;S1/Di,S2/Di,S3/Di,S5/Di,S10/Di,S11/Di
1040 END

```

| | | | | | |
|--------------|-----------|-----------|-----------|----------|----------|
| 1.625E-01 | 4.036E-02 | 0.000E+00 | 2.029E-01 | | |
| 1.625E-01 | 4.036E-02 | 1.780E-02 | 2.207E-01 | | |
| 1.625E-01 | 4.036E-02 | 3.740E-02 | 2.403E-01 | | |
| 3.232E-01 | 8.026E-02 | 3.740E-02 | 4.409E-01 | | |
| 4.829E-01 | 1.199E-01 | 3.740E-02 | 6.402E-01 | | |
| 4.829E-01 | 1.199E-01 | 5.740E-02 | 6.602E-01 | | |
| 4.829E-01 | 1.199E-01 | 7.710E-02 | 6.799E-01 | | |
| 6.463E-01 | 1.605E-01 | 7.710E-02 | 8.839E-01 | | |
| 8.042E-01 | 1.997E-01 | 7.710E-02 | 1.081E+00 | | |
| 8.042E-01 | 1.997E-01 | 9.910E-02 | 1.103E+00 | | |
| 8.042E-01 | 1.997E-01 | 1.171E-01 | 1.121E+00 | | |
| 9.725E-01 | 2.414E-01 | 1.171E-01 | 1.331E+00 | | |
| S44 | S40 | S32 | S28 | S14 | S12 |
| 6.97E-10 | 4.10E-11 | 3.19E-10 | 1.07E-09 | 7.26E-11 | 3.87E-11 |
| 6.69E-10 | 4.08E-11 | 3.26E-10 | 1.09E-09 | 7.38E-11 | 3.53E-11 |
| 7.25E-10 | 4.13E-11 | 3.49E-10 | 1.04E-09 | 7.15E-11 | 3.90E-11 |
| 7.86E-10 | 4.09E-11 | 3.64E-10 | 1.01E-09 | 6.96E-11 | 4.20E-11 |
| 7.02E-10 | 4.12E-11 | 3.70E-10 | 1.04E-09 | 7.16E-11 | 3.64E-11 |
| 6.71E-10 | 4.13E-11 | 3.77E-10 | 1.05E-09 | 7.16E-11 | 3.41E-11 |
| 7.74E-10 | 4.37E-11 | 3.76E-10 | 1.06E-09 | 7.19E-11 | 3.99E-11 |
| 9.42E-10 | 4.12E-11 | 4.16E-10 | 1.01E-09 | 6.76E-11 | 4.16E-11 |
| 7.87E-10 | 4.22E-11 | 4.26E-10 | 1.02E-09 | 6.89E-11 | 3.56E-11 |
| 7.64E-10 | 4.24E-11 | 4.26E-10 | 1.02E-09 | 6.89E-11 | 3.51E-11 |
| 8.99E-10 | 4.16E-11 | 4.10E-10 | 9.85E-10 | 7.54E-11 | 4.12E-11 |
| AVERAGE SENS | IS | | | | |
| 7.65E-10 | 4.16E-11 | 3.78E-10 | 1.04E-09 | 7.12E-11 | 3.81E-11 |

```

10! RE-STORE "STATIC2"
20 OPTION BASE 1
30 DIM Pk(9,12)
40 DATA 1.74E-12,3.64E-13,1.07E-13,1.59E-13,1.03E-11,2.13E-14,6.59E-14,4.93E-12,
1.24E-12,1.98E-13,1.71E-13,00
50 DATA 2.12E-12,1.50E-12,1.42E-12,2.83E-13,3.81E-11,2.71E-14,2.44E-13,6.26E-12,
1.57E-12,1.95E-12,2.40E-13,2.19E-4
60 DATA 2.42E-12,2.87E-12,3.60E-12,3.64E-13,7.53E-11,4.84E-14,5.15E-13,6.94E-12,
1.87E-12,4.06E-12,2.87E-13,4.84E-4
70 DATA 2.98E-12,5.21E-12,9.05E-12,6.24E-13,1.39E-10,5.42E-14,9.53E-13,8.31E-12,
2.42E-12,8.49E-12,3.80E-13,1.08E-3
80 DATA 3.86E-12,9.80E-12,1.87E-11,8.52E-13,2.50E-10,5.42E-14,1.85E-12,1.00E-11,
3.33E-12,1.62E-11,4.96E-13,2.06E-3
90 DATA 6.70E-12,2.42E-11,4.95E-11,1.64E-12,6.03E-10,9.69E-14,4.71E-12,1.48E-11,
6.14E-12,3.96E-11,7.36E-13,4.99E-3
100 DATA 1.23E-11,4.25E-11,8.72E-11,2.17E-12,9.05E-10,2.13E-13,8.31E-12,2.22E-11,
9.30E-12,6.14E-11,1.02E-12,7.5E-3
110 DATA 4.06E-12,2.17E-12,8.33E-13,5.58E-13,2.96E-11,6.59E-14,3.88E-13,1.50E-11,
2.42E-12,1.39E-12,3.41E-13,7.49E-3 ! RANGE VALVE CLOSED
120 DATA 3.35E-12,1.62E-12,3.68E-13,4.73E-13,2.02E-11,6.20E-14,2.98E-13,1.24E-11,
2.17E-12,8.41E-13,2.98E-13,0
130 READ Pk(*)
140 IMAGE 3X,MD.DE
150 FOR I=2 TO 7
160 Pn2=Pk(I,12)*.8011
170 Po2=Pk(I,12)*.1989
180 I28=(Pk(I,5)-Pk(1,5))-1.E-11*(Pk(I,5)>6.3E-11)-5.E-12
190 I32=(Pk(I,3)-Pk(1,3))-1.E-11*(Pk(I,3)>6.3E-11)
200 PRINT USING 140;Pn2,I28/Pn2,Po2,I32/Po2,I32
210 NEXT I
220 ! GOTO End
230 PRINT
240 FOR I=2 TO 6
241 I28_1=(Pk(I,5)-Pk(1,5))-1.E-11*(Pk(I,5)>6.3E-11)
242 I28_2=(Pk(I+1,5)-Pk(1,5))-1.E-11*(Pk(I+1,5)>6.3E-11)
243 I32_1=(Pk(I,3)-Pk(1,3))-1.E-11*(Pk(I,3)>6.3E-11)
244 I32_2=(Pk(I+1,3)-Pk(1,3))-1.E-11*(Pk(I+1,3)>6.3E-11)
250 Dpn2=(Pk(I+1,12)-Pk(I,12))* .8011
260 Dpo2=(Pk(I+1,12)-Pk(I,12))* .1989
270 Dn2=I28_2-I28_1
280 Do2=I32_2-I32_1
290 PRINT USING 140;Dpn2,Dn2/Dpn2,Dpo2,Do2/Dpo2
300 NEXT I
310 End: !
320 END

```

| | | | | |
|---------|---------|---------|---------|---------|
| 1.8E-04 | 1.3E-07 | 4.4E-05 | 3.0E-08 | 1.3E-12 |
| 3.9E-04 | 1.3E-07 | 9.6E-05 | 3.6E-08 | 3.5E-12 |
| 8.7E-04 | 1.3E-07 | 2.1E-04 | 4.2E-08 | 8.9E-12 |
| 1.7E-03 | 1.4E-07 | 4.1E-04 | 4.5E-08 | 1.9E-11 |
| 4.0E-03 | 1.4E-07 | 9.9E-04 | 5.0E-08 | 4.9E-11 |
| 6.0E-03 | 1.5E-07 | 1.5E-03 | 5.2E-08 | 7.7E-11 |
| 2.1E-04 | 1.3E-07 | 5.3E-05 | 4.1E-08 | |
| 4.8E-04 | 1.3E-07 | 1.2E-04 | 4.6E-08 | |
| 7.9E-04 | 1.4E-07 | 1.9E-04 | 5.0E-08 | |
| 2.3E-03 | 1.5E-07 | 5.8E-04 | 5.3E-08 | |
| 2.0E-03 | 1.5E-07 | 5.0E-04 | 5.5E-08 | |

```

10!  RE-STORE "STATIC"
20  OPTION BASE 1
30  COM D(6,12)
40  ! GOTO Bypass
50  DATA 2.43E-12,1.71E-13,1.74E-13,3.37E-13,1.45E-11,4.84E-14,3.88E-14,6.82E-
12,1.94E-12,2.67E-13,3.33E-13,0      ! BKG RANGE OPEN
60  DATA 9.30E-12,2.49E-11,6.24E-11,3.60E-12,7.30E-10,1.28E-13,4.87E-12,3.11E-
11,1.02E-11,4.95E-11,1.38E-12,6.29E-3  ! RANGE OPEN
70  DATA 4.34E-12,2.00E-12,8.84E-13,9.30E-13,3.86E-11,7.36E-14,3.57E-13,2.47E-
11,4.46E-12,1.76E-12,5.39E-13,6.67E-3  ! RANGE CLOSED
80  DATA 5.08E-12,7.56E-12,1.29E-11,1.25E-12,1.95E-10,7.94E-14,1.47E-12,2.46E-
11,5.18E-12,1.23E-11,5.74E-13,2.09E-1  ! RANGE CLOSED
90  DATA 8.31E-12,2.47E-11,5.07E-11,3.12E-12,6.31E-10,1.20E-13,4.90E-12,3.06E-
11,8.80E-12,4.25E-11,1.01E-12,7.64E-1  ! RANGE CLOSED
100 DATA 1.25E-11,3.73E-11,9.01E-11,4.05E-12,8.61E-10,2.21E-13,7.29E-12,3.86E-
11,1.13E-11,5.84E-11,1.21E-12,1.10    ! RANGE CLOSED
110 READ D(*)
120 ! PAUSE
130 Bypass:  !
140         IMAGE 3X,MD.DDE
150         FOR I=4 TO 6
160             In2=D(I,5)-D(1,5)-1.6E-11
170             Pn2=D(I,12)*.8011
180             Io2=D(I,3)-D(1,3)
190             Po2=D(I,12)*.1989
200             Dn2=D(I,5)-D(I-1,5)
210             Do2=D(I,3)-D(I-1,3)
220             Dco2=D(I,1)-D(I-1,1)
230             Dpn2=(D(I,12)-D(I-1,12))* .8011
240             Dpo2=(D(I,12)-D(I-1,12))* .1989
250             PRINT USING 140;Pn2,In2/Pn2,Po2,Io2/Po2
260             PRINT USING 140;Dpn2,Dn2/Dpn2,Dpo2,(Do2)/Dpo2,D(I,10)*100/D(I,5),Dc
o2
270     PRINT
280     NEXT I
290     GCLEAR
300     WINDOW 0,1.1,0,8.5E-10
310     FOR J=2 TO 5
320     MOVE 0,0
330     FOR I=3 TO 6
340     DRAW D(I,1),D(I,J)*(1+13.3*(J=5))
350     NEXT I
360     MOVE 0,0
370     NEXT J
380     END

```

| | | | | | |
|----------|----------|----------|----------|----------|----------|
| 1.67E-01 | 9.83E-10 | 4.16E-02 | 3.06E-10 | | |
| 1.62E-01 | 9.65E-10 | 4.02E-02 | 2.99E-10 | 6.31E+00 | 7.40E-13 |
| 6.12E-01 | 9.81E-10 | 1.52E-01 | 3.32E-10 | | |
| 4.45E-01 | 9.81E-10 | 1.10E-01 | 3.42E-10 | 6.74E+00 | 3.23E-12 |
| 8.81E-01 | 9.42E-10 | 2.19E-01 | 4.11E-10 | | |
| 2.69E-01 | 8.54E-10 | 6.68E-02 | 5.90E-10 | 6.78E+00 | 4.19E-12 |

1.0 SUMS Calibration Data

1.6 Printout of Peaks from Dynamic Calibration

```

10 ! RE-STORE "PRT_PKDC91"
20 OPTION BASE 1
30 COM D1(95,11),D2(95,11),D3(95,11),D4(150,11)
40 GOTO Bypass
50 ASSIGN @Ab TO "PKDC082791"
60 ENTER @Ab;D1(*)
70 ASSIGN @Ab TO "PKDC082891"
80 ENTER @Ab;D2(*)
90 ASSIGN @Ab TO "PKDC082991"
100 ENTER @Ab;D3(*)
110 ASSIGN @Ab TO "PKDC82991: ,704,1"
120 ENTER @Ab;D4(*)
130 BEEP
140 PAUSE
150 Bypass: !
160     FOR J=1 TO 3
170         PRINT
180         PRINT
190 PRINT "          PEAKS FROM  DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART "
;J;"A"
200 PRINT "  SCAN      44          40          32          30          28
18"
210 IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
220 IF J=1 THEN St=1
230 IF J=2 THEN St=51
240 IF J=3 THEN St=101
250 Ed=St+49
260     FOR I=St TO Ed
270 PRINT USING 210;I,D4(I,1),D4(I,2),D4(I,3),D4(I,4),D4(I,5),D4(I,8)
280 NEXT I
290 PRINT CHR$(12)
300 NEXT J
301 PRINT CHR$(12)
310     FOR J=1 TO 3
320         PRINT
330         PRINT
340 PRINT "          PEAKS FROM  DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART "
;J;"B"
350 PRINT "  SCAN      22          20          18          16          14
12"
360 IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
370 IF J=1 THEN St=1
380 IF J=2 THEN St=51
390 IF J=3 THEN St=101
400 Ed=St+49
410     FOR I=St TO Ed
420 PRINT USING 360;I,D4(I,6),D4(I,7),D4(I,8),D4(I,9),D4(I,10),D4(I,11)
430 NEXT I
440 PRINT CHR$(12)
450 NEXT J
460 PRINT CHR$(12)
470 END

```

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART 1 A | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2 | 1.75E-12 | 8.29E-13 | 1.71E-13 | 1.63E-13 | 1.17E-11 | 4.22E-12 |
| 3 | 1.80E-12 | 8.68E-13 | 2.17E-13 | 1.32E-13 | 1.22E-11 | 4.22E-12 |
| 4 | 1.80E-12 | 8.99E-13 | 6.36E-13 | 1.39E-13 | 1.90E-11 | 4.22E-12 |
| 5 | 1.84E-12 | 1.38E-12 | 1.38E-12 | 1.32E-13 | 3.26E-11 | 4.22E-12 |
| 6 | 1.89E-12 | 1.98E-12 | 2.26E-12 | 1.47E-13 | 4.70E-11 | 4.22E-12 |
| 7 | 2.01E-12 | 2.64E-12 | 3.19E-12 | 1.55E-13 | 6.19E-11 | 4.34E-12 |
| 8 | 2.11E-12 | 3.32E-12 | 4.15E-12 | 1.47E-13 | 8.12E-11 | 4.34E-12 |
| 9 | 2.17E-12 | 4.03E-12 | 5.15E-12 | 2.40E-13 | 9.51E-11 | 4.34E-12 |
| 10 | 2.23E-12 | 4.40E-12 | 6.26E-12 | 2.17E-13 | 1.06E-10 | 4.40E-12 |
| 11 | 2.29E-12 | 4.96E-12 | 7.32E-12 | 2.48E-13 | 1.21E-10 | 4.46E-12 |
| 12 | 2.36E-12 | 5.58E-12 | 8.56E-12 | 2.48E-13 | 1.35E-10 | 4.46E-12 |
| 13 | 2.36E-12 | 6.14E-12 | 9.67E-12 | 4.26E-13 | 1.47E-10 | 4.53E-12 |
| 14 | 2.51E-12 | 6.76E-12 | 1.08E-11 | 2.64E-13 | 1.61E-10 | 4.53E-12 |
| 15 | 2.64E-12 | 7.50E-12 | 1.20E-11 | 3.10E-13 | 1.74E-10 | 4.71E-12 |
| 16 | 2.67E-12 | 8.31E-12 | 1.31E-11 | 3.10E-13 | 1.88E-10 | 4.71E-12 |
| 17 | 2.70E-12 | 9.05E-12 | 1.44E-11 | 5.81E-13 | 2.00E-10 | 4.71E-12 |
| 18 | 2.82E-12 | 9.80E-12 | 1.55E-11 | 3.80E-13 | 2.12E-10 | 4.71E-12 |
| 19 | 2.98E-12 | 1.08E-11 | 1.72E-11 | 3.57E-13 | 2.28E-10 | 4.90E-12 |
| 20 | 3.01E-12 | 1.15E-11 | 1.82E-11 | 3.72E-13 | 2.42E-10 | 4.90E-12 |
| 21 | 3.07E-12 | 1.20E-11 | 1.95E-11 | 7.59E-13 | 2.56E-10 | 5.02E-12 |
| 22 | 3.16E-12 | 1.30E-11 | 2.05E-11 | 4.50E-13 | 2.66E-10 | 5.08E-12 |
| 23 | 3.26E-12 | 1.38E-11 | 2.19E-11 | 4.19E-13 | 2.82E-10 | 5.15E-12 |
| 24 | 3.38E-12 | 1.46E-11 | 2.32E-11 | 4.65E-13 | 2.94E-10 | 5.21E-12 |
| 25 | 3.38E-12 | 1.51E-11 | 2.42E-11 | 8.91E-13 | 3.01E-10 | 5.27E-12 |
| 26 | 3.50E-12 | 1.60E-11 | 2.57E-11 | 4.73E-13 | 3.21E-10 | 5.27E-12 |
| 27 | 3.63E-12 | 1.67E-11 | 2.72E-11 | 5.19E-13 | 3.37E-10 | 5.46E-12 |
| 28 | 3.75E-12 | 1.77E-11 | 2.84E-11 | 5.58E-13 | 3.49E-10 | 5.52E-12 |
| 29 | 3.78E-12 | 1.80E-11 | 2.91E-11 | 1.06E-12 | 3.57E-10 | 5.58E-12 |
| 30 | 3.91E-12 | 1.85E-11 | 3.06E-11 | 6.12E-13 | 3.69E-10 | 5.64E-12 |
| 31 | 4.03E-12 | 1.92E-11 | 3.26E-11 | 5.58E-13 | 3.85E-10 | 5.70E-12 |
| 32 | 4.09E-12 | 1.97E-11 | 3.36E-11 | 6.28E-13 | 4.01E-10 | 5.83E-12 |
| 33 | 4.15E-12 | 2.00E-11 | 3.51E-11 | 1.14E-12 | 4.01E-10 | 5.95E-12 |
| 34 | 4.28E-12 | 2.05E-11 | 3.61E-11 | 6.67E-13 | 4.17E-10 | 5.95E-12 |
| 35 | 4.40E-12 | 2.12E-11 | 3.76E-11 | 6.90E-13 | 4.32E-10 | 6.08E-12 |
| 36 | 4.53E-12 | 2.17E-11 | 3.86E-11 | 6.90E-13 | 4.48E-10 | 6.20E-12 |
| 37 | 4.53E-12 | 2.24E-11 | 4.01E-11 | 1.31E-12 | 4.48E-10 | 6.20E-12 |
| 38 | 4.65E-12 | 2.32E-11 | 4.10E-11 | 7.28E-13 | 4.72E-10 | 6.32E-12 |
| 39 | 4.77E-12 | 2.37E-11 | 4.25E-11 | 7.67E-13 | 4.84E-10 | 6.39E-12 |
| 40 | 4.90E-12 | 2.44E-11 | 4.45E-11 | 7.90E-13 | 5.00E-10 | 6.51E-12 |
| 41 | 4.96E-12 | 2.49E-11 | 4.50E-11 | 1.43E-12 | 5.16E-10 | 6.63E-12 |
| 42 | 5.08E-12 | 2.57E-11 | 4.60E-11 | 8.14E-13 | 5.16E-10 | 6.63E-12 |
| 43 | 5.15E-12 | 2.64E-11 | 4.80E-11 | 8.37E-13 | 5.40E-10 | 6.76E-12 |
| 44 | 5.27E-12 | 2.69E-11 | 4.95E-11 | 8.68E-13 | 5.55E-10 | 6.94E-12 |
| 45 | 5.39E-12 | 2.74E-11 | 5.00E-11 | 1.63E-12 | 5.63E-10 | 6.94E-12 |
| 46 | 5.52E-12 | 2.81E-11 | 5.15E-11 | 9.14E-13 | 5.79E-10 | 7.07E-12 |
| 47 | 5.64E-12 | 2.89E-11 | 5.29E-11 | 9.14E-13 | 5.95E-10 | 7.13E-12 |
| 48 | 5.70E-12 | 2.99E-11 | 5.44E-11 | 8.84E-13 | 6.11E-10 | 7.13E-12 |
| 49 | 5.83E-12 | 3.04E-11 | 5.54E-11 | 1.80E-12 | 6.19E-10 | 7.32E-12 |
| 50 | 5.95E-12 | 3.11E-11 | 5.64E-11 | 9.92E-13 | 6.51E-10 | 7.38E-12 |

PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART 2 A

| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
|------|----------|----------|----------|----------|----------|----------|
| 51 | 6.14E-12 | 3.51E-11 | 5.79E-11 | 1.02E-12 | 6.74E-10 | 7.50E-12 |
| 52 | 6.26E-12 | 3.51E-11 | 5.94E-11 | 1.05E-12 | 6.82E-10 | 7.69E-12 |
| 53 | 6.39E-12 | 3.51E-11 | 5.99E-11 | 2.00E-12 | 6.90E-10 | 7.69E-12 |
| 54 | 6.45E-12 | 3.56E-11 | 6.14E-11 | 1.07E-12 | 6.90E-10 | 7.94E-12 |
| 55 | 6.57E-12 | 3.61E-11 | 6.24E-11 | 1.12E-12 | 7.22E-10 | 8.06E-12 |
| 56 | 6.63E-12 | 3.66E-11 | 6.53E-11 | 1.13E-12 | 7.38E-10 | 8.06E-12 |
| 57 | 6.88E-12 | 3.71E-11 | 7.13E-11 | 2.15E-12 | 7.46E-10 | 8.31E-12 |
| 58 | 6.94E-12 | 3.76E-11 | 7.03E-11 | 1.18E-12 | 7.62E-10 | 8.31E-12 |
| 59 | 7.07E-12 | 3.81E-11 | 6.63E-11 | 1.18E-12 | 7.70E-10 | 8.56E-12 |
| 60 | 7.13E-12 | 3.86E-11 | 7.73E-11 | 1.24E-12 | 7.78E-10 | 8.56E-12 |
| 61 | 7.25E-12 | 3.91E-11 | 7.53E-11 | 2.37E-12 | 7.86E-10 | 8.56E-12 |
| 62 | 7.38E-12 | 3.96E-11 | 7.53E-11 | 1.24E-12 | 8.01E-10 | 8.68E-12 |
| 63 | 7.50E-12 | 4.01E-11 | 7.03E-11 | 1.27E-12 | 8.17E-10 | 8.80E-12 |
| 64 | 7.63E-12 | 4.05E-11 | 7.92E-11 | 1.27E-12 | 8.25E-10 | 8.80E-12 |
| 65 | 7.69E-12 | 4.05E-11 | 7.92E-11 | 2.40E-12 | 8.25E-10 | 9.05E-12 |
| 66 | 8.06E-12 | 4.15E-11 | 8.22E-11 | 1.36E-12 | 8.41E-10 | 9.05E-12 |
| 67 | 8.18E-12 | 4.20E-11 | 8.32E-11 | 1.30E-12 | 8.49E-10 | 9.18E-12 |
| 68 | 8.31E-12 | 4.25E-11 | 8.52E-11 | 1.35E-12 | 8.65E-10 | 9.30E-12 |
| 69 | 8.56E-12 | 4.25E-11 | 8.52E-11 | 2.51E-12 | 8.73E-10 | 9.42E-12 |
| 70 | 8.56E-12 | 4.35E-11 | 8.72E-11 | 1.40E-12 | 8.89E-10 | 9.42E-12 |
| 71 | 8.68E-12 | 4.40E-11 | 8.92E-11 | 1.41E-12 | 8.97E-10 | 9.55E-12 |
| 72 | 8.93E-12 | 4.45E-11 | 9.11E-11 | 1.43E-12 | 9.13E-10 | 9.67E-12 |
| 73 | 9.05E-12 | 4.55E-11 | 9.21E-11 | 2.45E-12 | 9.20E-10 | 9.80E-12 |
| 74 | 9.18E-12 | 4.60E-11 | 9.41E-11 | 1.47E-12 | 9.36E-10 | 9.80E-12 |
| 75 | 9.30E-12 | 4.65E-11 | 9.51E-11 | 1.49E-12 | 9.44E-10 | 9.92E-12 |
| 76 | 9.42E-12 | 4.70E-11 | 9.71E-11 | 1.53E-12 | 9.60E-10 | 1.00E-11 |
| 77 | 9.67E-12 | 4.80E-11 | 9.71E-11 | 2.71E-12 | 9.68E-10 | 1.02E-11 |
| 78 | 9.80E-12 | 4.85E-11 | 9.81E-11 | 1.63E-12 | 9.84E-10 | 1.03E-11 |
| 79 | 9.92E-12 | 4.90E-11 | 1.01E-10 | 1.58E-12 | 9.92E-10 | 1.03E-11 |
| 80 | 1.00E-11 | 5.00E-11 | 1.01E-10 | 1.61E-12 | 1.00E-09 | 1.04E-11 |
| 81 | 1.03E-11 | 5.05E-11 | 1.03E-10 | 2.77E-12 | 1.02E-09 | 1.05E-11 |
| 82 | 1.04E-11 | 5.10E-11 | 1.04E-10 | 1.64E-12 | 1.03E-09 | 1.05E-11 |
| 83 | 1.05E-11 | 5.15E-11 | 1.06E-10 | 1.70E-12 | 1.05E-09 | 1.07E-11 |
| 84 | 1.07E-11 | 5.20E-11 | 1.07E-10 | 1.74E-12 | 1.06E-09 | 1.08E-11 |
| 85 | 1.10E-11 | 5.29E-11 | 1.08E-10 | 2.99E-12 | 1.08E-09 | 1.09E-11 |
| 86 | 1.12E-11 | 5.34E-11 | 1.10E-10 | 1.78E-12 | 1.08E-09 | 1.12E-11 |
| 87 | 6.70E-12 | 2.89E-11 | 1.29E-12 | 1.15E-12 | 1.57E-10 | 1.10E-11 |
| 88 | 4.90E-12 | 1.04E-11 | 6.98E-13 | 9.30E-13 | 5.15E-11 | 1.08E-11 |
| 89 | 4.40E-12 | 5.46E-12 | 6.28E-13 | 8.22E-13 | 3.51E-11 | 1.05E-11 |
| 90 | 4.22E-12 | 4.15E-12 | 5.58E-13 | 7.44E-13 | 3.01E-11 | 1.03E-11 |
| 91 | 3.91E-12 | 3.41E-12 | 5.43E-13 | 7.05E-13 | 2.69E-11 | 1.02E-11 |
| 92 | 3.81E-12 | 3.07E-12 | 5.50E-13 | 6.43E-13 | 2.49E-11 | 1.00E-11 |
| 93 | 3.75E-12 | 2.76E-12 | 5.35E-13 | 5.89E-13 | 2.37E-11 | 9.92E-12 |
| 94 | 3.69E-12 | 2.48E-12 | 5.43E-13 | 5.97E-13 | 2.27E-11 | 9.80E-12 |
| 95 | 3.57E-12 | 2.32E-12 | 5.04E-13 | 5.58E-13 | 2.15E-11 | 9.67E-12 |
| 96 | 3.53E-12 | 2.23E-12 | 5.11E-13 | 5.89E-13 | 2.10E-11 | 9.55E-12 |
| 97 | 3.53E-12 | 2.14E-12 | 4.96E-13 | 5.43E-13 | 2.05E-11 | 9.55E-12 |
| 98 | 3.44E-12 | 2.11E-12 | 4.73E-13 | 5.19E-13 | 2.02E-11 | 9.30E-12 |
| 99 | 3.35E-12 | 1.98E-12 | 5.04E-13 | 4.65E-13 | 1.97E-11 | 9.30E-12 |
| 100 | 3.35E-12 | 1.95E-12 | 4.81E-13 | 4.73E-13 | 1.97E-11 | 9.30E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART 3 A | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 101 | 3.32E-12 | 1.92E-12 | 4.11E-13 | 4.65E-13 | 1.92E-11 | 9.30E-12 |
| 102 | 3.32E-12 | 1.81E-12 | 4.50E-13 | 4.88E-13 | 1.87E-11 | 9.05E-12 |
| 103 | 3.22E-12 | 1.70E-12 | 4.57E-13 | 4.50E-13 | 1.85E-11 | 9.05E-12 |
| 104 | 3.26E-12 | 1.71E-12 | 4.34E-13 | 4.42E-13 | 1.82E-11 | 9.05E-12 |
| 105 | 3.26E-12 | 1.67E-12 | 4.57E-13 | 4.57E-13 | 1.82E-11 | 9.05E-12 |
| 106 | 3.19E-12 | 1.64E-12 | 4.34E-13 | 4.03E-13 | 1.77E-11 | 8.80E-12 |
| 107 | 3.16E-12 | 1.53E-12 | 4.11E-13 | 3.72E-13 | 1.75E-11 | 8.80E-12 |
| 108 | 3.16E-12 | 1.53E-12 | 4.42E-13 | 3.95E-13 | 1.75E-11 | 8.80E-12 |
| 109 | 3.13E-12 | 1.49E-12 | 4.18E-13 | 4.34E-13 | 1.72E-11 | 8.80E-12 |
| 110 | 3.13E-12 | 1.49E-12 | 3.88E-13 | 4.11E-13 | 1.72E-11 | 8.68E-12 |
| 111 | 3.04E-12 | 1.44E-12 | 3.95E-13 | 3.80E-13 | 1.70E-11 | 8.68E-12 |
| 112 | 3.07E-12 | 1.55E-12 | 4.11E-13 | 3.80E-13 | 1.77E-11 | 8.56E-12 |
| 113 | 3.04E-12 | 1.64E-12 | 4.11E-13 | 4.18E-13 | 1.82E-11 | 8.56E-12 |
| 114 | 3.01E-12 | 1.61E-12 | 4.26E-13 | 4.26E-13 | 1.82E-11 | 8.56E-12 |
| 115 | 2.98E-12 | 1.53E-12 | 3.80E-13 | 3.72E-13 | 1.80E-11 | 8.56E-12 |
| 116 | 3.01E-12 | 1.53E-12 | 3.64E-13 | 3.57E-13 | 1.77E-11 | 8.56E-12 |
| 117 | 2.91E-12 | 1.52E-12 | 3.56E-13 | 3.72E-13 | 1.77E-11 | 8.31E-12 |
| 118 | 2.98E-12 | 1.49E-12 | 3.80E-13 | 3.49E-13 | 1.75E-11 | 8.31E-12 |
| 119 | 2.91E-12 | 1.46E-12 | 3.41E-13 | 3.41E-13 | 1.75E-11 | 8.43E-12 |
| 120 | 2.98E-12 | 1.47E-12 | 3.57E-13 | 3.95E-13 | 1.72E-11 | 8.31E-12 |
| 121 | 2.91E-12 | 1.46E-12 | 3.88E-13 | 3.64E-13 | 1.72E-11 | 8.31E-12 |
| 122 | 2.88E-12 | 1.43E-12 | 3.88E-13 | 3.02E-13 | 1.72E-11 | 8.18E-12 |
| 123 | 2.94E-12 | 1.41E-12 | 3.72E-13 | 3.49E-13 | 1.70E-11 | 8.18E-12 |
| 124 | 2.88E-12 | 1.38E-12 | 3.64E-13 | 3.41E-13 | 1.67E-11 | 8.31E-12 |
| 125 | 2.82E-12 | 1.35E-12 | 3.57E-13 | 3.64E-13 | 1.67E-11 | 8.31E-12 |
| 126 | 2.88E-12 | 1.35E-12 | 3.33E-13 | 3.18E-13 | 1.67E-11 | 8.06E-12 |
| 127 | 2.82E-12 | 1.33E-12 | 3.33E-13 | 3.41E-13 | 1.65E-11 | 8.06E-12 |
| 128 | 2.82E-12 | 1.32E-12 | 3.64E-13 | 3.49E-13 | 1.67E-11 | 8.06E-12 |
| 129 | 2.76E-12 | 1.32E-12 | 3.57E-13 | 2.79E-13 | 1.65E-11 | 8.06E-12 |
| 130 | 2.79E-12 | 1.30E-12 | 3.33E-13 | 3.80E-13 | 1.62E-11 | 7.94E-12 |
| 131 | 2.82E-12 | 1.29E-12 | 3.64E-13 | 3.57E-13 | 1.62E-11 | 8.06E-12 |
| 132 | 2.79E-12 | 1.33E-12 | 3.49E-13 | 3.49E-13 | 1.62E-11 | 8.06E-12 |
| 133 | 2.73E-12 | 1.32E-12 | 3.49E-13 | 3.33E-13 | 1.62E-11 | 8.06E-12 |
| 134 | 2.76E-12 | 1.24E-12 | 3.57E-13 | 3.10E-13 | 1.60E-11 | 7.75E-12 |
| 135 | 2.76E-12 | 1.27E-12 | 3.49E-13 | 3.33E-13 | 1.60E-11 | 7.69E-12 |
| 136 | 2.73E-12 | 1.26E-12 | 3.18E-13 | 2.94E-13 | 1.62E-11 | 7.69E-12 |
| 137 | 2.76E-12 | 1.27E-12 | 3.41E-13 | 3.10E-13 | 1.60E-11 | 7.69E-12 |
| 138 | 2.73E-12 | 1.24E-12 | 3.33E-13 | 3.10E-13 | 1.60E-11 | 7.63E-12 |
| 139 | 2.73E-12 | 1.21E-12 | 2.79E-13 | 3.26E-13 | 1.56E-11 | 7.69E-12 |
| 140 | 2.76E-12 | 1.26E-12 | 3.49E-13 | 3.49E-13 | 1.56E-11 | 7.69E-12 |
| 141 | 2.73E-12 | 1.27E-12 | 2.94E-13 | 3.02E-13 | 1.55E-11 | 7.69E-12 |
| 142 | 2.70E-12 | 1.24E-12 | 3.10E-13 | 3.25E-13 | 1.55E-11 | 7.50E-12 |
| 143 | 2.67E-12 | 1.16E-12 | 3.18E-13 | 3.02E-13 | 1.55E-11 | 7.63E-12 |
| 144 | 2.67E-12 | 1.21E-12 | 2.79E-13 | 3.02E-13 | 1.55E-11 | 7.63E-12 |
| 145 | 2.67E-12 | 1.19E-12 | 3.41E-13 | 3.33E-13 | 1.55E-11 | 7.56E-12 |
| 146 | 2.73E-12 | 1.18E-12 | 3.10E-13 | 2.94E-13 | 1.54E-11 | 7.44E-12 |
| 147 | 2.70E-12 | 1.19E-12 | 3.26E-13 | 3.10E-13 | 1.54E-11 | 7.56E-12 |
| 148 | 2.67E-12 | 1.22E-12 | 2.94E-13 | 2.87E-13 | 1.54E-11 | 7.50E-12 |
| 149 | 2.64E-12 | 1.18E-12 | 2.87E-13 | 2.32E-13 | 1.54E-11 | 7.44E-12 |
| 150 | 2.67E-12 | 1.18E-12 | 3.10E-13 | 3.10E-13 | 1.53E-11 | 7.38E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART 1 B | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2 | 2.71E-14 | 1.94E-13 | 4.22E-12 | 8.76E-13 | 4.03E-13 | 1.12E-13 |
| 3 | 3.88E-14 | 1.94E-13 | 4.22E-12 | 8.84E-13 | 4.57E-13 | 1.40E-13 |
| 4 | 4.26E-14 | 2.48E-13 | 4.22E-12 | 9.30E-13 | 1.13E-12 | 1.12E-13 |
| 5 | 3.49E-14 | 3.72E-13 | 4.22E-12 | 1.02E-12 | 2.11E-12 | 1.28E-13 |
| 6 | 3.10E-14 | 5.66E-13 | 4.22E-12 | 1.12E-12 | 3.04E-12 | 1.05E-13 |
| 7 | 3.88E-14 | 7.67E-13 | 4.34E-12 | 1.22E-12 | 4.03E-12 | 1.24E-13 |
| 8 | 3.10E-14 | 8.99E-13 | 4.34E-12 | 1.35E-12 | 5.02E-12 | 1.43E-13 |
| 9 | 5.43E-14 | 1.12E-12 | 4.34E-12 | 1.41E-12 | 5.95E-12 | 1.55E-13 |
| 10 | 5.04E-14 | 1.22E-12 | 4.40E-12 | 1.50E-12 | 6.76E-12 | 1.55E-13 |
| 11 | 5.81E-14 | 1.30E-12 | 4.46E-12 | 1.57E-12 | 7.63E-12 | 1.71E-13 |
| 12 | 6.98E-14 | 1.49E-12 | 4.46E-12 | 1.69E-12 | 8.56E-12 | 2.02E-13 |
| 13 | 5.81E-14 | 1.67E-12 | 4.53E-12 | 1.81E-12 | 9.55E-12 | 1.86E-13 |
| 14 | 6.20E-14 | 1.89E-12 | 4.53E-12 | 1.89E-12 | 1.05E-11 | 2.17E-13 |
| 15 | 6.20E-14 | 2.05E-12 | 4.71E-12 | 2.08E-12 | 1.14E-11 | 1.86E-13 |
| 16 | 7.75E-14 | 2.29E-12 | 4.71E-12 | 2.08E-12 | 1.23E-11 | 2.25E-13 |
| 17 | 8.14E-14 | 2.51E-12 | 4.71E-12 | 2.20E-12 | 1.33E-11 | 2.17E-13 |
| 18 | 8.91E-14 | 2.67E-12 | 4.71E-12 | 2.29E-12 | 1.41E-11 | 2.64E-13 |
| 19 | 7.75E-14 | 2.91E-12 | 4.90E-12 | 2.39E-12 | 1.50E-11 | 2.32E-13 |
| 20 | 8.14E-14 | 3.13E-12 | 4.90E-12 | 2.54E-12 | 1.60E-11 | 2.32E-13 |
| 21 | 1.01E-13 | 3.35E-12 | 5.02E-12 | 2.60E-12 | 1.72E-11 | 2.79E-13 |
| 22 | 1.05E-13 | 3.60E-12 | 5.08E-12 | 2.79E-12 | 1.80E-11 | 2.87E-13 |
| 23 | 8.91E-14 | 3.72E-12 | 5.15E-12 | 2.82E-12 | 1.87E-11 | 2.94E-13 |
| 24 | 7.75E-14 | 3.97E-12 | 5.21E-12 | 2.94E-12 | 1.97E-11 | 3.18E-13 |
| 25 | 9.69E-14 | 4.22E-12 | 5.27E-12 | 3.07E-12 | 2.07E-11 | 3.25E-13 |
| 26 | 9.30E-14 | 4.34E-12 | 5.27E-12 | 3.10E-12 | 2.17E-11 | 3.18E-13 |
| 27 | 9.69E-14 | 4.53E-12 | 5.46E-12 | 3.26E-12 | 2.24E-11 | 3.49E-13 |
| 28 | 1.12E-13 | 4.71E-12 | 5.52E-12 | 3.35E-12 | 2.34E-11 | 3.49E-13 |
| 29 | 1.20E-13 | 4.84E-12 | 5.58E-12 | 3.50E-12 | 2.42E-11 | 3.41E-13 |
| 30 | 1.12E-13 | 4.84E-12 | 5.64E-12 | 3.57E-12 | 2.49E-11 | 3.57E-13 |
| 31 | 1.16E-13 | 5.02E-12 | 5.70E-12 | 3.69E-12 | 2.59E-11 | 3.26E-13 |
| 32 | 1.47E-13 | 5.15E-12 | 5.83E-12 | 3.78E-12 | 2.67E-11 | 3.41E-13 |
| 33 | 1.24E-13 | 5.27E-12 | 5.95E-12 | 3.91E-12 | 2.77E-11 | 3.80E-13 |
| 34 | 9.69E-14 | 5.33E-12 | 5.95E-12 | 3.97E-12 | 2.81E-11 | 3.57E-13 |
| 35 | 1.47E-13 | 5.46E-12 | 6.08E-12 | 4.03E-12 | 2.89E-11 | 3.95E-13 |
| 36 | 1.08E-13 | 5.58E-12 | 6.20E-12 | 4.22E-12 | 3.01E-11 | 3.72E-13 |
| 37 | 1.24E-13 | 5.77E-12 | 6.20E-12 | 4.34E-12 | 3.11E-11 | 3.80E-13 |
| 38 | 1.55E-13 | 5.89E-12 | 6.32E-12 | 4.46E-12 | 3.21E-11 | 4.11E-13 |
| 39 | 1.86E-13 | 6.01E-12 | 6.39E-12 | 4.53E-12 | 3.26E-11 | 4.34E-13 |
| 40 | 1.32E-13 | 6.14E-12 | 6.51E-12 | 4.65E-12 | 3.36E-11 | 4.50E-13 |
| 41 | 1.63E-13 | 6.32E-12 | 6.63E-12 | 4.71E-12 | 3.46E-11 | 4.50E-13 |
| 42 | 1.94E-13 | 6.45E-12 | 6.63E-12 | 4.90E-12 | 3.56E-11 | 4.34E-13 |
| 43 | 1.63E-13 | 6.63E-12 | 6.76E-12 | 4.90E-12 | 3.61E-11 | 4.50E-13 |
| 44 | 1.94E-13 | 6.76E-12 | 6.94E-12 | 5.02E-12 | 3.76E-11 | 4.88E-13 |
| 45 | 1.94E-13 | 6.94E-12 | 6.94E-12 | 5.15E-12 | 3.86E-11 | 4.65E-13 |
| 46 | 1.94E-13 | 7.07E-12 | 7.07E-12 | 5.27E-12 | 3.91E-11 | 5.04E-13 |
| 47 | 1.94E-13 | 7.19E-12 | 7.13E-12 | 5.33E-12 | 4.01E-11 | 5.11E-13 |
| 48 | 1.71E-13 | 7.38E-12 | 7.13E-12 | 5.46E-12 | 4.10E-11 | 5.04E-13 |
| 49 | 1.71E-13 | 7.63E-12 | 7.32E-12 | 5.58E-12 | 4.15E-11 | 5.11E-13 |
| 50 | 2.09E-13 | 8.31E-12 | 7.38E-12 | 5.77E-12 | 4.45E-11 | 5.66E-13 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART 2 B | | | | | | |
|---|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 51 | 2.56E-13 | 8.68E-12 | 7.50E-12 | 6.01E-12 | 4.50E-11 | 5.89E-13 |
| 52 | 2.17E-13 | 8.68E-12 | 7.69E-12 | 6.08E-12 | 4.65E-11 | 5.97E-13 |
| 53 | 2.56E-13 | 8.68E-12 | 7.69E-12 | 6.08E-12 | 4.75E-11 | 6.43E-13 |
| 54 | 1.94E-13 | 8.80E-12 | 7.94E-12 | 6.20E-12 | 4.75E-11 | 5.97E-13 |
| 55 | 2.64E-13 | 8.68E-12 | 8.06E-12 | 6.32E-12 | 4.90E-11 | 6.28E-13 |
| 56 | 2.64E-13 | 8.93E-12 | 8.06E-12 | 6.39E-12 | 5.00E-11 | 6.20E-13 |
| 57 | 2.32E-13 | 9.05E-12 | 8.31E-12 | 6.57E-12 | 5.05E-11 | 6.20E-13 |
| 58 | 2.40E-13 | 9.18E-12 | 8.31E-12 | 6.63E-12 | 5.10E-11 | 6.12E-13 |
| 59 | 2.32E-13 | 9.30E-12 | 8.56E-12 | 6.70E-12 | 5.20E-11 | 6.90E-13 |
| 60 | 2.48E-13 | 9.30E-12 | 8.56E-12 | 6.76E-12 | 5.29E-11 | 6.36E-13 |
| 61 | 2.25E-13 | 9.42E-12 | 8.56E-12 | 6.94E-12 | 5.34E-11 | 6.82E-13 |
| 62 | 2.48E-13 | 9.55E-12 | 8.68E-12 | 6.94E-12 | 5.39E-11 | 6.74E-13 |
| 63 | 2.71E-13 | 9.55E-12 | 8.80E-12 | 7.07E-12 | 5.49E-11 | 6.43E-13 |
| 64 | 2.33E-13 | 9.67E-12 | 8.80E-12 | 7.13E-12 | 5.54E-11 | 6.59E-13 |
| 65 | 2.33E-13 | 9.80E-12 | 9.05E-12 | 7.32E-12 | 5.64E-11 | 6.67E-13 |
| 66 | 3.02E-13 | 9.92E-12 | 9.05E-12 | 7.44E-12 | 5.74E-11 | 6.82E-13 |
| 67 | 2.33E-13 | 9.92E-12 | 9.18E-12 | 7.44E-12 | 5.79E-11 | 6.74E-13 |
| 68 | 2.33E-13 | 9.92E-12 | 9.30E-12 | 7.56E-12 | 5.84E-11 | 7.05E-13 |
| 69 | 2.79E-13 | 1.00E-11 | 9.42E-12 | 7.69E-12 | 5.94E-11 | 6.98E-13 |
| 70 | 3.18E-13 | 1.03E-11 | 9.42E-12 | 7.75E-12 | 5.99E-11 | 7.36E-13 |
| 71 | 2.94E-13 | 1.04E-11 | 9.55E-12 | 7.87E-12 | 6.09E-11 | 7.05E-13 |
| 72 | 2.94E-13 | 1.04E-11 | 9.67E-12 | 8.06E-12 | 6.19E-11 | 7.60E-13 |
| 73 | 2.94E-13 | 1.07E-11 | 9.80E-12 | 8.18E-12 | 6.24E-11 | 7.21E-13 |
| 74 | 2.64E-13 | 1.08E-11 | 9.80E-12 | 8.31E-12 | 6.24E-11 | 7.75E-13 |
| 75 | 2.94E-13 | 1.09E-11 | 9.92E-12 | 8.43E-12 | 5.89E-11 | 7.91E-13 |
| 76 | 3.26E-13 | 1.10E-11 | 1.00E-11 | 8.56E-12 | 6.58E-11 | 8.14E-13 |
| 77 | 3.49E-13 | 1.12E-11 | 1.02E-11 | 8.56E-12 | 6.68E-11 | 7.83E-13 |
| 78 | 2.94E-13 | 1.13E-11 | 1.03E-11 | 8.80E-12 | 7.23E-11 | 8.14E-13 |
| 79 | 3.33E-13 | 1.13E-11 | 1.03E-11 | 8.80E-12 | 7.03E-11 | 8.37E-13 |
| 80 | 2.94E-13 | 1.14E-11 | 1.04E-11 | 8.93E-12 | 6.78E-11 | 7.98E-13 |
| 81 | 3.57E-13 | 1.15E-11 | 1.05E-11 | 9.05E-12 | 7.53E-11 | 8.60E-13 |
| 82 | 3.49E-13 | 1.18E-11 | 1.05E-11 | 9.30E-12 | 7.53E-11 | 8.45E-13 |
| 83 | 3.64E-13 | 1.19E-11 | 1.07E-11 | 9.18E-12 | 7.43E-11 | 8.37E-13 |
| 84 | 3.26E-13 | 1.19E-11 | 1.08E-11 | 9.42E-12 | 7.73E-11 | 8.60E-13 |
| 85 | 3.49E-13 | 1.20E-11 | 1.09E-11 | 9.55E-12 | 7.73E-11 | 8.68E-13 |
| 86 | 3.64E-13 | 1.15E-11 | 1.12E-11 | 5.08E-12 | 3.46E-11 | 7.98E-13 |
| 87 | 1.47E-13 | 5.08E-12 | 1.10E-11 | 1.84E-12 | 5.83E-12 | 3.80E-13 |
| 88 | 8.91E-14 | 1.98E-12 | 1.08E-11 | 1.63E-12 | 2.32E-12 | 2.94E-13 |
| 89 | 6.20E-14 | 1.19E-12 | 1.05E-11 | 1.49E-12 | 1.66E-12 | 2.40E-13 |
| 90 | 7.36E-14 | 9.61E-13 | 1.03E-11 | 1.49E-12 | 1.36E-12 | 3.02E-13 |
| 91 | 5.04E-14 | 7.98E-13 | 1.02E-11 | 1.49E-12 | 1.22E-12 | 2.09E-13 |
| 92 | 5.81E-14 | 7.21E-13 | 1.00E-11 | 1.44E-12 | 1.13E-12 | 2.40E-13 |
| 93 | 6.59E-14 | 6.36E-13 | 9.92E-12 | 1.38E-12 | 1.04E-12 | 2.56E-13 |
| 94 | 6.20E-14 | 6.12E-13 | 9.80E-12 | 1.38E-12 | 9.61E-13 | 2.40E-13 |
| 95 | 3.49E-14 | 5.43E-13 | 9.67E-12 | 1.36E-12 | 8.99E-13 | 2.09E-13 |
| 96 | 5.43E-14 | 5.35E-13 | 9.55E-12 | 1.32E-12 | 8.76E-13 | 2.48E-13 |
| 97 | 6.20E-14 | 4.88E-13 | 9.55E-12 | 1.38E-12 | 8.99E-13 | 2.64E-13 |
| 98 | 4.26E-14 | 4.42E-13 | 9.30E-12 | 1.38E-12 | 8.14E-13 | 2.17E-13 |
| 99 | 6.59E-14 | 4.57E-13 | 9.30E-12 | 1.36E-12 | 8.06E-13 | 2.25E-13 |
| 100 | 3.49E-14 | 4.57E-13 | 9.30E-12 | 1.32E-12 | 7.44E-13 | 1.94E-13 |

PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 TEST2 PART 3 B

| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
|------|----------|----------|----------|----------|----------|----------|
| 101 | 5.81E-14 | 4.11E-13 | 9.30E-12 | 1.33E-12 | 7.83E-13 | 1.94E-13 |
| 102 | 5.43E-14 | 3.80E-13 | 9.05E-12 | 1.33E-12 | 7.44E-13 | 1.63E-13 |
| 103 | 6.20E-14 | 4.19E-13 | 9.05E-12 | 1.33E-12 | 7.60E-13 | 2.09E-13 |
| 104 | 5.42E-14 | 3.41E-13 | 9.05E-12 | 1.33E-12 | 7.52E-13 | 2.02E-13 |
| 105 | 5.43E-14 | 3.57E-13 | 9.05E-12 | 1.35E-12 | 7.21E-13 | 2.17E-13 |
| 106 | 3.10E-14 | 3.57E-13 | 8.80E-12 | 1.32E-12 | 7.05E-13 | 1.94E-13 |
| 107 | 3.88E-14 | 3.10E-13 | 8.80E-12 | 1.27E-12 | 6.82E-13 | 1.78E-13 |
| 108 | 5.81E-14 | 3.10E-13 | 8.80E-12 | 1.27E-12 | 6.51E-13 | 1.71E-13 |
| 109 | 5.81E-14 | 3.33E-13 | 8.80E-12 | 1.35E-12 | 6.82E-13 | 2.09E-13 |
| 110 | 5.43E-14 | 3.02E-13 | 8.68E-12 | 1.29E-12 | 6.43E-13 | 2.02E-13 |
| 111 | 4.26E-14 | 2.71E-13 | 8.68E-12 | 1.26E-12 | 6.51E-13 | 1.94E-13 |
| 112 | 5.81E-14 | 3.33E-13 | 8.56E-12 | 1.30E-12 | 7.52E-13 | 2.02E-13 |
| 113 | 5.81E-14 | 3.10E-13 | 8.56E-12 | 1.26E-12 | 7.67E-13 | 2.25E-13 |
| 114 | 4.26E-14 | 3.57E-13 | 8.56E-12 | 1.33E-12 | 7.36E-13 | 2.02E-13 |
| 115 | 5.81E-14 | 3.26E-13 | 8.56E-12 | 1.30E-12 | 7.05E-13 | 1.86E-13 |
| 116 | 3.88E-14 | 2.48E-13 | 8.56E-12 | 1.24E-12 | 6.90E-13 | 1.71E-13 |
| 117 | 3.88E-14 | 3.10E-13 | 8.31E-12 | 1.29E-12 | 7.13E-13 | 1.86E-13 |
| 118 | 5.04E-14 | 3.49E-13 | 8.31E-12 | 1.29E-12 | 6.82E-13 | 2.09E-13 |
| 119 | 5.42E-14 | 3.10E-13 | 8.43E-12 | 1.29E-12 | 6.67E-13 | 2.17E-13 |
| 120 | 5.04E-14 | 3.33E-13 | 8.31E-12 | 1.26E-12 | 7.29E-13 | 2.32E-13 |
| 121 | 5.04E-14 | 2.94E-13 | 8.31E-12 | 1.30E-12 | 7.13E-13 | 1.71E-13 |
| 122 | 4.26E-14 | 3.10E-13 | 8.18E-12 | 1.26E-12 | 6.51E-13 | 2.17E-13 |
| 123 | 4.26E-14 | 2.71E-13 | 8.18E-12 | 1.24E-12 | 6.67E-13 | 2.02E-13 |
| 124 | 3.49E-14 | 2.79E-13 | 8.31E-12 | 1.26E-12 | 6.98E-13 | 1.94E-13 |
| 125 | 3.10E-14 | 2.56E-13 | 8.31E-12 | 1.26E-12 | 6.67E-13 | 1.86E-13 |
| 126 | 4.26E-14 | 2.17E-13 | 8.06E-12 | 1.27E-12 | 6.67E-13 | 1.78E-13 |
| 127 | 4.26E-14 | 2.71E-13 | 8.06E-12 | 1.22E-12 | 6.51E-13 | 2.02E-13 |
| 128 | 3.88E-14 | 2.94E-13 | 8.06E-12 | 1.26E-12 | 5.97E-13 | 2.02E-13 |
| 129 | 3.49E-14 | 2.71E-13 | 8.06E-12 | 1.26E-12 | 6.51E-13 | 1.78E-13 |
| 130 | 5.43E-14 | 2.79E-13 | 7.94E-12 | 1.32E-12 | 6.28E-13 | 2.09E-13 |
| 131 | 5.43E-14 | 2.56E-13 | 8.06E-12 | 1.26E-12 | 6.51E-13 | 1.86E-13 |
| 132 | 5.04E-14 | 2.17E-13 | 8.06E-12 | 1.22E-12 | 6.59E-13 | 1.71E-13 |
| 133 | 4.26E-14 | 2.56E-13 | 8.06E-12 | 1.26E-12 | 6.36E-13 | 1.63E-13 |
| 134 | 4.65E-14 | 2.48E-13 | 7.75E-12 | 1.24E-12 | 6.28E-13 | 1.94E-13 |
| 135 | 5.43E-14 | 2.64E-13 | 7.69E-12 | 1.24E-12 | 6.36E-13 | 1.86E-13 |
| 136 | 3.88E-14 | 2.25E-13 | 7.69E-12 | 1.26E-12 | 5.74E-13 | 1.47E-13 |
| 137 | 5.43E-14 | 2.71E-13 | 7.69E-12 | 1.24E-12 | 6.12E-13 | 1.78E-13 |
| 138 | 4.26E-14 | 2.25E-13 | 7.63E-12 | 1.24E-12 | 5.89E-13 | 1.63E-13 |
| 139 | 3.10E-14 | 2.40E-13 | 7.69E-12 | 1.24E-12 | 5.89E-13 | 1.71E-13 |
| 140 | 3.88E-14 | 2.79E-13 | 7.69E-12 | 1.24E-12 | 5.81E-13 | 1.78E-13 |
| 141 | 5.42E-14 | 2.56E-13 | 7.69E-12 | 1.19E-12 | 5.97E-13 | 2.17E-13 |
| 142 | 6.20E-14 | 2.48E-13 | 7.50E-12 | 1.21E-12 | 5.97E-13 | 1.63E-13 |
| 143 | 3.88E-14 | 2.79E-13 | 7.63E-12 | 1.21E-12 | 5.89E-13 | 1.78E-13 |
| 144 | 3.88E-14 | 2.40E-13 | 7.63E-12 | 1.22E-12 | 5.81E-13 | 1.71E-13 |
| 145 | 6.59E-14 | 2.56E-13 | 7.56E-12 | 1.24E-12 | 5.81E-13 | 1.55E-13 |
| 146 | 4.26E-14 | 2.32E-13 | 7.44E-12 | 1.19E-12 | 5.97E-13 | 1.78E-13 |
| 147 | 3.49E-14 | 2.71E-13 | 7.56E-12 | 1.26E-12 | 5.89E-13 | 1.78E-13 |
| 148 | 3.49E-14 | 2.25E-13 | 7.50E-12 | 1.18E-12 | 5.74E-13 | 1.63E-13 |
| 149 | 4.26E-14 | 2.40E-13 | 7.44E-12 | 1.21E-12 | 5.35E-13 | 1.63E-13 |
| 150 | 3.10E-14 | 2.02E-13 | 7.38E-12 | 1.21E-12 | 5.66E-13 | 1.55E-13 |

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10  OPTION BASE 1
20  COM D1(95,11),D2(95,11),D3(95,11)
30  GOTO Bypass
40  ASSIGN @Ab TO "PKDC082791"
50  ENTER @Ab;D1(*)
60  ASSIGN @Ab TO "PKDC082891"
70  ENTER @Ab;D2(*)
80  ASSIGN @Ab TO "PKDC082991"
90  ENTER @Ab;D3(*)
100 BEEP
110 PAUSE
120 Bypass:
130      PRINT
131      PRINT
132 PRINT "          PEAKS FROM  DYNAMIC CALIBRATION DATA AUGUST 27 1991  PART 1A"
133 PRINT "  SCAN      44          40          32          30          28
134 IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
135      FOR I=1 TO 50
136 PRINT USING 134;I,D1(I,1),D1(I,2),D1(I,3),D1(I,4),D1(I,5),D1(I,8)
137 NEXT I
138 PRINT CHR$(12)
139 PRINT
140 PRINT
141 PRINT "          PEAKS FROM  DYNAMIC CALIBRATION DATA AUGUST 27 1991  PART 2A"
142 PRINT "  SCAN      44          40          32          30          28
143 IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
144      FOR I=51 TO 95
145 PRINT USING 143;I,D1(I,1),D1(I,2),D1(I,3),D1(I,4),D1(I,5),D1(I,8)
146 NEXT I
147 PRINT CHR$(12)
301      PRINT
302      PRINT
303 PRINT "          PEAKS FROM  DYNAMIC CALIBRATION DATA AUGUST 27 1991  PART 1B"
304 PRINT "  SCAN      22          20          18          16          14
305 IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
306      FOR I=1 TO 50
307 PRINT USING 305;I,D1(I,6),D1(I,7),D1(I,8),D1(I,9),D1(I,10),D1(I,11)
308 NEXT I
309 PRINT CHR$(12)
310 PRINT
311 PRINT
312 PRINT "          PEAKS FROM  DYNAMIC CALIBRATION DATA AUGUST 27 1991  PART 2B"
313 PRINT "  SCAN      22          20          18          16          14
314 IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
315      FOR I=51 TO 95
316 PRINT USING 314;I,D1(I,6),D1(I,7),D1(I,8),D1(I,9),D1(I,10),D1(I,11)
317 NEXT I
318 PRINT CHR$(12)
319 END

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| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 27 1991 PART 1A | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 1 | 1.53E-12 | 3.72E-13 | 1.09E-13 | 1.20E-13 | 8.93E-12 | 3.19E-12 |
| 2 | 1.55E-12 | 3.72E-13 | 1.01E-13 | 9.69E-14 | 8.93E-12 | 3.13E-12 |
| 3 | 1.58E-12 | 3.95E-13 | 1.08E-13 | 1.24E-13 | 9.05E-12 | 3.16E-12 |
| 4 | 1.61E-12 | 3.72E-13 | 1.40E-13 | 1.47E-13 | 9.05E-12 | 3.19E-12 |
| 5 | 1.58E-12 | 4.19E-13 | 1.28E-13 | 1.08E-13 | 8.93E-12 | 3.13E-12 |
| 6 | 1.53E-12 | 3.72E-13 | 9.69E-14 | 1.01E-13 | 8.93E-12 | 3.13E-12 |
| 7 | 1.57E-12 | 3.64E-13 | 1.28E-13 | 7.75E-14 | 9.18E-12 | 3.13E-12 |
| 8 | 1.57E-12 | 4.65E-13 | 3.64E-13 | 1.09E-13 | 1.36E-11 | 3.19E-12 |
| 9 | 1.58E-12 | 6.74E-13 | 7.21E-13 | 1.16E-13 | 2.15E-11 | 3.19E-12 |
| 10 | 1.61E-12 | 1.01E-12 | 1.08E-12 | 1.05E-13 | 2.96E-11 | 3.19E-12 |
| 11 | 1.72E-12 | 1.33E-12 | 1.52E-12 | 1.47E-13 | 3.86E-11 | 3.16E-12 |
| 12 | 1.72E-12 | 1.63E-12 | 1.84E-12 | 1.36E-13 | 4.65E-11 | 3.22E-12 |
| 13 | 1.77E-12 | 1.91E-12 | 2.36E-12 | 1.86E-13 | 5.34E-11 | 3.26E-12 |
| 14 | 1.83E-12 | 2.20E-12 | 2.82E-12 | 1.47E-13 | 6.14E-11 | 3.26E-12 |
| 15 | 1.86E-12 | 2.48E-12 | 3.35E-12 | 1.39E-13 | 7.63E-11 | 3.35E-12 |
| 16 | 1.89E-12 | 2.82E-12 | 3.81E-12 | 1.55E-13 | 8.32E-11 | 3.29E-12 |
| 17 | 1.94E-12 | 3.10E-12 | 4.40E-12 | 2.94E-13 | 9.11E-11 | 3.38E-12 |
| 18 | 1.98E-12 | 3.41E-12 | 4.90E-12 | 1.55E-13 | 9.81E-11 | 3.35E-12 |
| 19 | 2.08E-12 | 3.78E-12 | 5.46E-12 | 1.78E-13 | 1.07E-10 | 3.44E-12 |
| 20 | 2.11E-12 | 4.09E-12 | 6.01E-12 | 2.02E-13 | 1.15E-10 | 3.44E-12 |
| 21 | 2.14E-12 | 4.15E-12 | 6.63E-12 | 3.88E-13 | 1.20E-10 | 3.50E-12 |
| 22 | 2.17E-12 | 4.40E-12 | 7.25E-12 | 1.94E-13 | 1.29E-10 | 3.57E-12 |
| 23 | 2.26E-12 | 4.71E-12 | 7.94E-12 | 2.02E-13 | 1.35E-10 | 3.57E-12 |
| 24 | 2.29E-12 | 5.02E-12 | 8.56E-12 | 2.48E-13 | 1.43E-10 | 3.63E-12 |
| 25 | 2.29E-12 | 5.33E-12 | 9.18E-12 | 4.42E-13 | 1.49E-10 | 3.66E-12 |
| 26 | 2.36E-12 | 5.64E-12 | 9.92E-12 | 2.33E-13 | 1.57E-10 | 3.69E-12 |
| 27 | 2.48E-12 | 6.01E-12 | 1.05E-11 | 2.87E-13 | 1.67E-10 | 3.72E-12 |
| 28 | 2.51E-12 | 6.32E-12 | 1.10E-11 | 2.94E-13 | 1.74E-10 | 3.75E-12 |
| 29 | 2.48E-12 | 6.57E-12 | 1.17E-11 | 5.89E-13 | 1.80E-10 | 3.78E-12 |
| 30 | 2.60E-12 | 6.94E-12 | 1.24E-11 | 2.64E-13 | 1.88E-10 | 3.81E-12 |
| 31 | 2.64E-12 | 7.32E-12 | 1.31E-11 | 3.33E-13 | 1.96E-10 | 3.91E-12 |
| 32 | 2.70E-12 | 7.69E-12 | 1.36E-11 | 3.49E-13 | 2.02E-10 | 3.97E-12 |
| 33 | 2.70E-12 | 8.18E-12 | 1.44E-11 | 6.35E-13 | 2.08E-10 | 4.03E-12 |
| 34 | 2.79E-12 | 8.56E-12 | 1.50E-11 | 3.64E-13 | 2.18E-10 | 4.09E-12 |
| 35 | 2.82E-12 | 8.93E-12 | 1.57E-11 | 3.02E-13 | 2.26E-10 | 4.15E-12 |
| 36 | 2.91E-12 | 9.30E-12 | 1.65E-11 | 4.34E-13 | 2.34E-10 | 4.15E-12 |
| 37 | 2.91E-12 | 9.55E-12 | 1.70E-11 | 7.36E-13 | 2.40E-10 | 4.15E-12 |
| 38 | 2.94E-12 | 9.92E-12 | 1.80E-11 | 3.88E-13 | 2.48E-10 | 4.22E-12 |
| 39 | 3.07E-12 | 1.04E-11 | 1.87E-11 | 3.57E-13 | 2.58E-10 | 4.28E-12 |
| 40 | 3.10E-12 | 1.09E-11 | 1.90E-11 | 4.65E-13 | 2.70E-10 | 4.40E-12 |
| 41 | 3.10E-12 | 1.10E-11 | 1.97E-11 | 8.37E-13 | 2.74E-10 | 4.34E-12 |
| 42 | 3.16E-12 | 1.15E-11 | 2.05E-11 | 4.42E-13 | 2.82E-10 | 4.46E-12 |
| 43 | 3.32E-12 | 1.20E-11 | 2.12E-11 | 4.57E-13 | 2.90E-10 | 4.53E-12 |
| 44 | 3.35E-12 | 1.23E-11 | 2.19E-11 | 5.50E-13 | 2.94E-10 | 4.59E-12 |
| 45 | 3.35E-12 | 1.25E-11 | 2.24E-11 | 9.22E-13 | 2.97E-10 | 4.59E-12 |
| 46 | 3.38E-12 | 1.28E-11 | 2.34E-11 | 4.88E-13 | 3.05E-10 | 4.65E-12 |
| 47 | 3.50E-12 | 1.33E-11 | 2.42E-11 | 5.04E-13 | 3.21E-10 | 4.71E-12 |
| 48 | 3.57E-12 | 1.38E-11 | 2.47E-11 | 5.89E-13 | 3.25E-10 | 4.71E-12 |
| 49 | 3.57E-12 | 1.38E-11 | 2.52E-11 | 1.03E-12 | 3.29E-10 | 4.77E-12 |
| 50 | 3.63E-12 | 1.43E-11 | 2.59E-11 | 5.58E-13 | 3.37E-10 | 4.90E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 27 1991 PART 2A | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 51 | 3.72E-12 | 1.48E-11 | 2.67E-11 | 5.19E-13 | 3.49E-10 | 4.96E-12 |
| 52 | 3.75E-12 | 1.50E-11 | 2.74E-11 | 6.51E-13 | 3.57E-10 | 5.02E-12 |
| 53 | 3.78E-12 | 1.53E-11 | 2.79E-11 | 1.16E-12 | 3.57E-10 | 5.02E-12 |
| 54 | 3.91E-12 | 1.55E-11 | 2.86E-11 | 5.66E-13 | 3.69E-10 | 5.08E-12 |
| 55 | 3.97E-12 | 1.62E-11 | 2.96E-11 | 6.12E-13 | 3.77E-10 | 5.15E-12 |
| 56 | 4.03E-12 | 1.67E-11 | 3.01E-11 | 7.52E-13 | 3.85E-10 | 5.21E-12 |
| 57 | 4.03E-12 | 1.65E-11 | 3.06E-11 | 1.17E-12 | 3.85E-10 | 5.27E-12 |
| 58 | 4.03E-12 | 1.70E-11 | 3.11E-11 | 6.12E-13 | 3.97E-10 | 5.27E-12 |
| 59 | 4.15E-12 | 1.72E-11 | 3.26E-11 | 6.67E-13 | 4.05E-10 | 5.39E-12 |
| 60 | 4.28E-12 | 1.77E-11 | 3.31E-11 | 7.67E-13 | 4.13E-10 | 5.46E-12 |
| 61 | 4.28E-12 | 1.77E-11 | 3.36E-11 | 1.31E-12 | 4.17E-10 | 5.58E-12 |
| 62 | 4.28E-12 | 1.80E-11 | 3.41E-11 | 6.43E-13 | 4.20E-10 | 5.52E-12 |
| 63 | 4.40E-12 | 1.82E-11 | 3.56E-11 | 6.90E-13 | 4.32E-10 | 5.64E-12 |
| 64 | 4.53E-12 | 1.87E-11 | 3.56E-11 | 8.45E-13 | 4.40E-10 | 5.64E-12 |
| 65 | 4.59E-12 | 1.90E-11 | 3.61E-11 | 1.42E-12 | 4.40E-10 | 5.77E-12 |
| 66 | 4.65E-12 | 1.92E-11 | 3.71E-11 | 7.52E-13 | 4.48E-10 | 5.77E-12 |
| 67 | 4.65E-12 | 1.97E-11 | 3.81E-11 | 7.52E-13 | 4.60E-10 | 5.83E-12 |
| 68 | 4.77E-12 | 2.00E-11 | 3.86E-11 | 8.29E-13 | 4.68E-10 | 5.95E-12 |
| 69 | 4.77E-12 | 2.02E-11 | 3.91E-11 | 1.47E-12 | 4.72E-10 | 6.01E-12 |
| 70 | 4.84E-12 | 2.07E-11 | 4.01E-11 | 7.52E-13 | 4.80E-10 | 6.08E-12 |
| 71 | 5.02E-12 | 2.10E-11 | 4.05E-11 | 7.75E-13 | 4.88E-10 | 6.14E-12 |
| 72 | 5.02E-12 | 2.12E-11 | 4.15E-11 | 8.84E-13 | 4.96E-10 | 6.20E-12 |
| 73 | 5.08E-12 | 2.17E-11 | 4.20E-11 | 1.64E-12 | 5.00E-10 | 6.32E-12 |
| 74 | 5.15E-12 | 2.22E-11 | 4.20E-11 | 8.68E-13 | 5.16E-10 | 6.32E-12 |
| 75 | 5.15E-12 | 2.24E-11 | 4.35E-11 | 8.52E-13 | 5.16E-10 | 6.39E-12 |
| 76 | 5.27E-12 | 2.27E-11 | 4.45E-11 | 9.46E-13 | 5.32E-10 | 6.45E-12 |
| 77 | 5.33E-12 | 2.29E-11 | 4.40E-11 | 1.63E-12 | 5.40E-10 | 6.51E-12 |
| 78 | 5.39E-12 | 2.32E-11 | 4.50E-11 | 9.14E-13 | 5.47E-10 | 6.57E-12 |
| 79 | 5.39E-12 | 2.37E-11 | 4.65E-11 | 8.99E-13 | 5.55E-10 | 6.63E-12 |
| 80 | 5.52E-12 | 2.39E-11 | 4.65E-11 | 9.61E-13 | 5.63E-10 | 6.70E-12 |
| 81 | 5.64E-12 | 2.44E-11 | 4.70E-11 | 1.86E-12 | 5.63E-10 | 6.82E-12 |
| 82 | 5.70E-12 | 2.47E-11 | 4.80E-11 | 9.92E-13 | 5.71E-10 | 6.82E-12 |
| 83 | 5.64E-12 | 2.49E-11 | 4.90E-11 | 9.76E-13 | 5.79E-10 | 6.94E-12 |
| 84 | 5.77E-12 | 2.54E-11 | 4.95E-11 | 1.01E-12 | 5.87E-10 | 7.01E-12 |
| 85 | 5.89E-12 | 2.59E-11 | 4.95E-11 | 1.91E-12 | 5.87E-10 | 7.01E-12 |
| 86 | 5.95E-12 | 2.62E-11 | 5.05E-11 | 1.01E-12 | 5.95E-10 | 7.07E-12 |
| 87 | 5.95E-12 | 2.64E-11 | 5.15E-11 | 9.76E-13 | 6.11E-10 | 7.13E-12 |
| 88 | 6.14E-12 | 2.69E-11 | 5.25E-11 | 1.08E-12 | 6.19E-10 | 7.19E-12 |
| 89 | 6.20E-12 | 2.77E-11 | 5.25E-11 | 1.92E-12 | 6.27E-10 | 7.32E-12 |
| 90 | 6.26E-12 | 2.77E-11 | 5.29E-11 | 1.04E-12 | 6.27E-10 | 7.25E-12 |
| 91 | 6.32E-12 | 2.81E-11 | 5.44E-11 | 1.05E-12 | 6.43E-10 | 7.44E-12 |
| 92 | 6.45E-12 | 2.94E-11 | 5.49E-11 | 1.18E-12 | 6.66E-10 | 7.56E-12 |
| 93 | 6.57E-12 | 3.11E-11 | 5.49E-11 | 2.15E-12 | 6.82E-10 | 7.56E-12 |
| 94 | 6.57E-12 | 3.11E-11 | 5.54E-11 | 1.10E-12 | 6.82E-10 | 7.63E-12 |
| 95 | 6.63E-12 | 3.09E-11 | 5.69E-11 | 1.12E-12 | 6.90E-10 | 7.69E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 27 1991 PART 1B | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 1 | 3.49E-14 | 8.91E-14 | 3.19E-12 | 7.83E-13 | 2.64E-13 | 1.24E-13 |
| 2 | 2.71E-14 | 5.43E-14 | 3.13E-12 | 7.44E-13 | 1.78E-13 | 8.91E-14 |
| 3 | 4.26E-14 | 6.20E-14 | 3.16E-12 | 7.98E-13 | 1.94E-13 | 1.40E-13 |
| 4 | 3.10E-14 | 6.20E-14 | 3.19E-12 | 7.83E-13 | 2.09E-13 | 1.01E-13 |
| 5 | 2.33E-14 | 8.14E-14 | 3.13E-12 | 7.91E-13 | 2.09E-13 | 1.36E-13 |
| 6 | 2.71E-14 | 7.36E-14 | 3.13E-12 | 7.75E-13 | 1.86E-13 | 1.01E-13 |
| 7 | 2.33E-14 | 4.65E-14 | 3.13E-12 | 7.67E-13 | 2.48E-13 | 1.05E-13 |
| 8 | 3.88E-14 | 5.81E-14 | 3.19E-12 | 8.45E-13 | 7.21E-13 | 1.08E-13 |
| 9 | 2.33E-14 | 9.30E-14 | 3.19E-12 | 8.68E-13 | 1.19E-12 | 1.24E-13 |
| 10 | 3.49E-14 | 1.40E-13 | 3.19E-12 | 9.14E-13 | 1.78E-12 | 1.16E-13 |
| 11 | 1.94E-14 | 1.78E-13 | 3.16E-12 | 9.76E-13 | 2.32E-12 | 1.40E-13 |
| 12 | 1.16E-14 | 2.33E-13 | 3.22E-12 | 1.05E-12 | 2.88E-12 | 1.12E-13 |
| 13 | 3.88E-14 | 2.94E-13 | 3.26E-12 | 1.10E-12 | 3.41E-12 | 1.39E-13 |
| 14 | 4.26E-14 | 3.64E-13 | 3.26E-12 | 1.15E-12 | 3.91E-12 | 1.86E-13 |
| 15 | 3.10E-14 | 4.34E-13 | 3.35E-12 | 1.22E-12 | 4.46E-12 | 2.09E-13 |
| 16 | 3.49E-14 | 5.19E-13 | 3.29E-12 | 1.27E-12 | 5.02E-12 | 1.43E-13 |
| 17 | 3.49E-14 | 5.35E-13 | 3.38E-12 | 1.32E-12 | 5.58E-12 | 1.78E-13 |
| 18 | 3.10E-14 | 5.97E-13 | 3.35E-12 | 1.36E-12 | 6.08E-12 | 1.86E-13 |
| 19 | 3.10E-14 | 7.05E-13 | 3.44E-12 | 1.40E-12 | 6.63E-12 | 1.86E-13 |
| 20 | 4.26E-14 | 7.44E-13 | 3.44E-12 | 1.46E-12 | 7.01E-12 | 2.25E-13 |
| 21 | 3.49E-14 | 7.52E-13 | 3.50E-12 | 1.52E-12 | 7.56E-12 | 1.78E-13 |
| 22 | 2.71E-14 | 7.75E-13 | 3.57E-12 | 1.58E-12 | 8.18E-12 | 2.48E-13 |
| 23 | 3.88E-14 | 8.29E-13 | 3.57E-12 | 1.61E-12 | 8.68E-12 | 2.33E-13 |
| 24 | 2.71E-14 | 9.14E-13 | 3.63E-12 | 1.72E-12 | 9.30E-12 | 2.32E-13 |
| 25 | 3.88E-14 | 9.61E-13 | 3.66E-12 | 1.72E-12 | 9.80E-12 | 2.17E-13 |
| 26 | 3.49E-14 | 1.05E-12 | 3.69E-12 | 1.80E-12 | 1.02E-11 | 2.25E-13 |
| 27 | 2.71E-14 | 1.08E-12 | 3.72E-12 | 1.95E-12 | 1.08E-11 | 2.40E-13 |
| 28 | 3.49E-14 | 1.15E-12 | 3.75E-12 | 1.95E-12 | 1.13E-11 | 2.71E-13 |
| 29 | 3.10E-14 | 1.26E-12 | 3.78E-12 | 1.98E-12 | 1.18E-11 | 2.71E-13 |
| 30 | 1.16E-14 | 1.30E-12 | 3.81E-12 | 2.08E-12 | 1.24E-11 | 2.79E-13 |
| 31 | 2.33E-14 | 1.40E-12 | 3.91E-12 | 2.14E-12 | 1.29E-11 | 2.25E-13 |
| 32 | 2.71E-14 | 1.44E-12 | 3.97E-12 | 2.17E-12 | 1.34E-11 | 2.48E-13 |
| 33 | 4.26E-14 | 1.53E-12 | 4.03E-12 | 2.26E-12 | 1.40E-11 | 2.79E-13 |
| 34 | 4.65E-14 | 1.60E-12 | 4.09E-12 | 2.32E-12 | 1.44E-11 | 2.64E-13 |
| 35 | 3.49E-14 | 1.63E-12 | 4.15E-12 | 2.39E-12 | 1.49E-11 | 2.56E-13 |
| 36 | 5.42E-14 | 1.75E-12 | 4.15E-12 | 2.45E-12 | 1.54E-11 | 3.02E-13 |
| 37 | 4.26E-14 | 1.84E-12 | 4.15E-12 | 2.51E-12 | 1.62E-11 | 3.18E-13 |
| 38 | 5.04E-14 | 1.84E-12 | 4.22E-12 | 2.54E-12 | 1.65E-11 | 3.10E-13 |
| 39 | 5.43E-14 | 1.98E-12 | 4.28E-12 | 2.57E-12 | 1.70E-11 | 3.10E-13 |
| 40 | 5.04E-14 | 2.08E-12 | 4.40E-12 | 2.70E-12 | 1.77E-11 | 2.94E-13 |
| 41 | 3.49E-14 | 2.11E-12 | 4.34E-12 | 2.70E-12 | 1.82E-11 | 3.02E-13 |
| 42 | 2.71E-14 | 2.14E-12 | 4.46E-12 | 2.79E-12 | 1.85E-11 | 3.26E-13 |
| 43 | 3.88E-14 | 2.26E-12 | 4.53E-12 | 2.79E-12 | 1.92E-11 | 3.33E-13 |
| 44 | 3.10E-14 | 2.29E-12 | 4.59E-12 | 2.91E-12 | 1.97E-11 | 3.33E-13 |
| 45 | 5.81E-14 | 2.39E-12 | 4.59E-12 | 3.01E-12 | 2.02E-11 | 3.41E-13 |
| 46 | 3.49E-14 | 2.42E-12 | 4.65E-12 | 3.01E-12 | 2.07E-11 | 3.57E-13 |
| 47 | 6.20E-14 | 2.51E-12 | 4.71E-12 | 3.10E-12 | 2.15E-11 | 3.80E-13 |
| 48 | 3.88E-14 | 2.57E-12 | 4.71E-12 | 3.19E-12 | 2.17E-11 | 3.26E-13 |
| 49 | 4.26E-14 | 2.60E-12 | 4.77E-12 | 3.16E-12 | 2.22E-11 | 3.18E-13 |
| 50 | 4.26E-14 | 2.73E-12 | 4.90E-12 | 3.26E-12 | 2.27E-11 | 3.49E-13 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 27 1991 PART 2B | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 51 | 5.43E-14 | 2.76E-12 | 4.96E-12 | 3.35E-12 | 2.34E-11 | 3.57E-13 |
| 52 | 6.59E-14 | 2.85E-12 | 5.02E-12 | 3.38E-12 | 2.39E-11 | 3.33E-13 |
| 53 | 4.26E-14 | 2.88E-12 | 5.02E-12 | 3.41E-12 | 2.47E-11 | 3.72E-13 |
| 54 | 4.26E-14 | 2.98E-12 | 5.08E-12 | 3.50E-12 | 2.49E-11 | 3.80E-13 |
| 55 | 5.42E-14 | 2.94E-12 | 5.15E-12 | 3.53E-12 | 2.54E-11 | 4.11E-13 |
| 56 | 5.81E-14 | 3.07E-12 | 5.21E-12 | 3.63E-12 | 2.59E-11 | 3.88E-13 |
| 57 | 5.81E-14 | 3.10E-12 | 5.27E-12 | 3.66E-12 | 2.64E-11 | 3.88E-13 |
| 58 | 7.36E-14 | 3.22E-12 | 5.27E-12 | 3.69E-12 | 2.69E-11 | 4.11E-13 |
| 59 | 5.04E-14 | 3.19E-12 | 5.39E-12 | 3.75E-12 | 2.74E-11 | 3.88E-13 |
| 60 | 5.04E-14 | 3.26E-12 | 5.46E-12 | 3.81E-12 | 2.79E-11 | 4.26E-13 |
| 61 | 6.59E-14 | 3.35E-12 | 5.58E-12 | 3.91E-12 | 2.84E-11 | 3.88E-13 |
| 62 | 4.65E-14 | 3.35E-12 | 5.52E-12 | 3.84E-12 | 2.84E-11 | 4.11E-13 |
| 63 | 6.20E-14 | 3.44E-12 | 5.64E-12 | 3.97E-12 | 2.94E-11 | 4.03E-13 |
| 64 | 6.20E-14 | 3.47E-12 | 5.64E-12 | 4.03E-12 | 2.99E-11 | 3.88E-13 |
| 65 | 5.04E-14 | 3.60E-12 | 5.77E-12 | 4.09E-12 | 3.01E-11 | 4.18E-13 |
| 66 | 6.98E-14 | 3.66E-12 | 5.77E-12 | 4.09E-12 | 3.04E-11 | 4.57E-13 |
| 67 | 8.14E-14 | 3.69E-12 | 5.83E-12 | 4.28E-12 | 3.11E-11 | 4.65E-13 |
| 68 | 6.98E-14 | 3.75E-12 | 5.95E-12 | 4.34E-12 | 3.19E-11 | 4.42E-13 |
| 69 | 7.36E-14 | 3.84E-12 | 6.01E-12 | 4.34E-12 | 3.26E-11 | 4.50E-13 |
| 70 | 6.98E-14 | 3.97E-12 | 6.08E-12 | 4.46E-12 | 3.31E-11 | 4.57E-13 |
| 71 | 6.20E-14 | 3.91E-12 | 6.14E-12 | 4.46E-12 | 3.36E-11 | 4.26E-13 |
| 72 | 7.36E-14 | 4.03E-12 | 6.20E-12 | 4.53E-12 | 3.41E-11 | 4.81E-13 |
| 73 | 7.75E-14 | 4.09E-12 | 6.32E-12 | 4.59E-12 | 3.46E-11 | 5.27E-13 |
| 74 | 7.75E-14 | 4.22E-12 | 6.32E-12 | 4.65E-12 | 3.51E-11 | 5.11E-13 |
| 75 | 6.59E-14 | 4.15E-12 | 6.39E-12 | 4.77E-12 | 3.56E-11 | 5.35E-13 |
| 76 | 7.36E-14 | 4.28E-12 | 6.45E-12 | 4.71E-12 | 3.61E-11 | 4.96E-13 |
| 77 | 6.59E-14 | 4.40E-12 | 6.51E-12 | 4.84E-12 | 3.66E-11 | 4.96E-13 |
| 78 | 8.14E-14 | 4.46E-12 | 6.57E-12 | 4.84E-12 | 3.71E-11 | 5.58E-13 |
| 79 | 8.14E-14 | 4.46E-12 | 6.63E-12 | 4.90E-12 | 3.76E-11 | 5.43E-13 |
| 80 | 6.98E-14 | 4.59E-12 | 6.70E-12 | 4.96E-12 | 3.76E-11 | 4.81E-13 |
| 81 | 8.53E-14 | 4.65E-12 | 6.82E-12 | 5.08E-12 | 3.86E-11 | 5.58E-13 |
| 82 | 7.75E-14 | 4.71E-12 | 6.82E-12 | 5.08E-12 | 3.86E-11 | 5.35E-13 |
| 83 | 8.14E-14 | 4.71E-12 | 6.94E-12 | 5.08E-12 | 3.96E-11 | 5.74E-13 |
| 84 | 9.30E-14 | 4.77E-12 | 7.01E-12 | 5.21E-12 | 4.01E-11 | 5.81E-13 |
| 85 | 6.98E-14 | 4.84E-12 | 7.01E-12 | 5.33E-12 | 4.05E-11 | 5.58E-13 |
| 86 | 9.30E-14 | 5.02E-12 | 7.07E-12 | 5.33E-12 | 4.10E-11 | 5.66E-13 |
| 87 | 8.53E-14 | 5.02E-12 | 7.13E-12 | 5.33E-12 | 4.10E-11 | 5.43E-13 |
| 88 | 8.53E-14 | 5.15E-12 | 7.19E-12 | 5.46E-12 | 4.20E-11 | 5.81E-13 |
| 89 | 9.69E-14 | 5.21E-12 | 7.32E-12 | 5.52E-12 | 4.25E-11 | 6.20E-13 |
| 90 | 8.14E-14 | 5.27E-12 | 7.25E-12 | 5.52E-12 | 4.30E-11 | 5.50E-13 |
| 91 | 1.20E-13 | 5.33E-12 | 7.44E-12 | 5.58E-12 | 4.35E-11 | 5.89E-13 |
| 92 | 8.52E-14 | 5.77E-12 | 7.56E-12 | 5.70E-12 | 4.55E-11 | 6.43E-13 |
| 93 | 8.91E-14 | 5.89E-12 | 7.56E-12 | 5.83E-12 | 4.65E-11 | 6.36E-13 |
| 94 | 8.14E-14 | 5.83E-12 | 7.63E-12 | 5.89E-12 | 4.60E-11 | 6.59E-13 |
| 95 | 9.30E-14 | 5.77E-12 | 7.69E-12 | 5.89E-12 | 4.70E-11 | 6.43E-13 |


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10    OPTION BASE 1
20    COM D1(95,11),D2(95,11),D3(95,11)
30    GOTO Bypass
40    ASSIGN @Ab TO "PKDC082791"
50    ENTER @Ab;D1(*)
60    ASSIGN @Ab TO "PKDC082891"
70    ENTER @Ab;D2(*)
80    ASSIGN @Ab TO "PKDC082991"
90    ENTER @Ab;D3(*)
100   BEEP
110   PAUSE
120   Bypass: !
130       PRINT
131       PRINT
132   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 28 1991    PART 1A"
133   PRINT "    SCAN          44              40              32              30              28
134   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
135       FOR I=1 TO 50
136   PRINT USING 134;I,D2(I,1),D2(I,2),D2(I,3),D2(I,4),D2(I,5),D2(I,8)
137   NEXT I
138   PRINT CHR$(12)
139   PRINT
140   PRINT
141   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 28 1991    PART 2A"
142   PRINT "    SCAN          44              40              32              30              28
143   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
144       FOR I=51 TO 95
145   PRINT USING 143;I,D2(I,1),D2(I,2),D2(I,3),D2(I,4),D2(I,5),D2(I,8)
146   NEXT I
147   PRINT CHR$(12)
301       PRINT
302       PRINT
303   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 28 1991    PART 1B"
304   PRINT "    SCAN          22              20              18              16              14
305   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
306       FOR I=1 TO 50
307   PRINT USING 305;I,D2(I,6),D2(I,7),D2(I,8),D2(I,9),D2(I,10),D2(I,11)
308   NEXT I
309   PRINT CHR$(12)
310   PRINT
311   PRINT
312   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 28 1991    PART 2B"
313   PRINT "    SCAN          22              20              18              16              14
314   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
315       FOR I=51 TO 95
316   PRINT USING 314;I,D2(I,6),D2(I,7),D2(I,8),D2(I,9),D2(I,10),D2(I,11)
317   NEXT I
318   PRINT CHR$(12)
319   END

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| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 28 1991 PART 1A | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 1 | 1.32E-12 | 2.94E-13 | 8.14E-14 | 9.30E-14 | 7.19E-12 | 2.14E-12 |
| 2 | 1.33E-12 | 2.64E-13 | 8.91E-14 | 8.53E-14 | 7.19E-12 | 2.11E-12 |
| 3 | 1.33E-12 | 2.79E-13 | 6.20E-14 | 8.53E-14 | 7.25E-12 | 2.11E-12 |
| 4 | 1.38E-12 | 2.79E-13 | 8.53E-14 | 1.01E-13 | 7.32E-12 | 2.17E-12 |
| 5 | 1.33E-12 | 2.79E-13 | 8.91E-14 | 8.53E-14 | 7.25E-12 | 2.11E-12 |
| 6 | 1.32E-12 | 2.71E-13 | 5.42E-14 | 8.14E-14 | 7.25E-12 | 2.11E-12 |
| 7 | 1.32E-12 | 2.17E-13 | 8.91E-14 | 6.20E-14 | 7.25E-12 | 2.17E-12 |
| 8 | 1.35E-12 | 3.02E-13 | 1.05E-13 | 8.14E-14 | 7.50E-12 | 2.17E-12 |
| 9 | 1.32E-12 | 3.18E-13 | 1.55E-13 | 7.75E-14 | 9.42E-12 | 2.20E-12 |
| 10 | 1.40E-12 | 4.73E-13 | 5.19E-13 | 1.05E-13 | 1.65E-11 | 2.17E-12 |
| 11 | 1.36E-12 | 7.75E-13 | 1.02E-12 | 8.91E-14 | 2.74E-11 | 2.17E-12 |
| 12 | 1.47E-12 | 1.24E-12 | 1.49E-12 | 9.69E-14 | 3.86E-11 | 2.20E-12 |
| 13 | 1.53E-12 | 1.64E-12 | 2.11E-12 | 1.01E-13 | 4.90E-11 | 2.20E-12 |
| 14 | 1.63E-12 | 2.01E-12 | 2.76E-12 | 1.05E-13 | 5.99E-11 | 2.26E-12 |
| 15 | 1.61E-12 | 2.45E-12 | 3.44E-12 | 1.28E-13 | 7.53E-11 | 2.32E-12 |
| 16 | 1.72E-12 | 2.82E-12 | 4.03E-12 | 1.59E-13 | 8.42E-11 | 2.29E-12 |
| 17 | 1.77E-12 | 3.26E-12 | 4.77E-12 | 1.08E-13 | 9.51E-11 | 2.32E-12 |
| 18 | 1.81E-12 | 3.69E-12 | 5.58E-12 | 9.69E-14 | 1.05E-10 | 2.29E-12 |
| 19 | 1.92E-12 | 4.09E-12 | 6.45E-12 | 1.12E-13 | 1.18E-10 | 2.39E-12 |
| 20 | 1.92E-12 | 4.28E-12 | 7.13E-12 | 2.40E-13 | 1.24E-10 | 2.42E-12 |
| 21 | 1.98E-12 | 4.53E-12 | 8.18E-12 | 1.12E-13 | 1.35E-10 | 2.45E-12 |
| 22 | 2.08E-12 | 4.96E-12 | 9.05E-12 | 1.55E-13 | 1.45E-10 | 2.51E-12 |
| 23 | 2.14E-12 | 5.46E-12 | 9.92E-12 | 1.78E-13 | 1.57E-10 | 2.54E-12 |
| 24 | 2.20E-12 | 5.83E-12 | 1.07E-11 | 4.19E-13 | 1.65E-10 | 2.57E-12 |
| 25 | 2.23E-12 | 6.26E-12 | 1.17E-11 | 1.94E-13 | 1.74E-10 | 2.60E-12 |
| 26 | 2.32E-12 | 6.76E-12 | 1.28E-11 | 2.25E-13 | 1.86E-10 | 2.64E-12 |
| 27 | 2.39E-12 | 7.25E-12 | 1.35E-11 | 2.17E-13 | 1.96E-10 | 2.73E-12 |
| 28 | 2.42E-12 | 7.63E-12 | 1.43E-11 | 5.19E-13 | 2.06E-10 | 2.73E-12 |
| 29 | 2.45E-12 | 8.31E-12 | 1.53E-11 | 2.56E-13 | 2.16E-10 | 2.82E-12 |
| 30 | 2.57E-12 | 8.80E-12 | 1.62E-11 | 2.71E-13 | 2.20E-10 | 2.82E-12 |
| 31 | 2.64E-12 | 9.30E-12 | 1.72E-11 | 2.64E-13 | 2.38E-10 | 2.88E-12 |
| 32 | 2.70E-12 | 9.92E-12 | 1.80E-11 | 6.12E-13 | 2.46E-10 | 2.91E-12 |
| 33 | 2.73E-12 | 1.04E-11 | 1.90E-11 | 2.87E-13 | 2.58E-10 | 2.94E-12 |
| 34 | 2.85E-12 | 1.09E-11 | 2.00E-11 | 3.25E-13 | 2.62E-10 | 3.01E-12 |
| 35 | 2.94E-12 | 1.15E-11 | 2.10E-11 | 3.57E-13 | 2.78E-10 | 3.04E-12 |
| 36 | 2.94E-12 | 1.19E-11 | 2.17E-11 | 6.74E-13 | 2.86E-10 | 3.13E-12 |
| 37 | 3.04E-12 | 1.24E-11 | 2.24E-11 | 3.57E-13 | 2.97E-10 | 3.19E-12 |
| 38 | 3.10E-12 | 1.29E-11 | 2.37E-11 | 3.64E-13 | 3.09E-10 | 3.22E-12 |
| 39 | 3.19E-12 | 1.35E-11 | 2.47E-11 | 3.64E-13 | 3.17E-10 | 3.29E-12 |
| 40 | 3.22E-12 | 1.39E-11 | 2.52E-11 | 7.59E-13 | 3.25E-10 | 3.35E-12 |
| 41 | 3.35E-12 | 1.44E-11 | 2.62E-11 | 4.26E-13 | 3.41E-10 | 3.32E-12 |
| 42 | 3.35E-12 | 1.49E-11 | 2.74E-11 | 4.03E-13 | 3.45E-10 | 3.38E-12 |
| 43 | 3.50E-12 | 1.54E-11 | 2.84E-11 | 4.26E-13 | 3.61E-10 | 3.50E-12 |
| 44 | 3.53E-12 | 1.57E-11 | 2.89E-11 | 9.84E-13 | 3.69E-10 | 3.60E-12 |
| 45 | 3.57E-12 | 1.62E-11 | 2.96E-11 | 4.34E-13 | 3.77E-10 | 3.57E-12 |
| 46 | 3.63E-12 | 1.67E-11 | 3.11E-11 | 4.96E-13 | 3.85E-10 | 3.60E-12 |
| 47 | 3.78E-12 | 1.70E-11 | 3.26E-11 | 4.73E-13 | 3.97E-10 | 3.69E-12 |
| 48 | 3.81E-12 | 1.72E-11 | 3.31E-11 | 1.08E-12 | 4.05E-10 | 3.75E-12 |
| 49 | 3.97E-12 | 1.77E-11 | 3.41E-11 | 5.43E-13 | 4.13E-10 | 3.81E-12 |
| 50 | 3.91E-12 | 1.80E-11 | 3.51E-11 | 5.11E-13 | 4.20E-10 | 3.84E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 28 1991 PART 2A | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 51 | 4.03E-12 | 1.85E-11 | 3.66E-11 | 6.05E-13 | 4.32E-10 | 3.97E-12 |
| 52 | 4.09E-12 | 1.87E-11 | 3.66E-11 | 1.07E-12 | 4.40E-10 | 3.97E-12 |
| 53 | 4.22E-12 | 1.92E-11 | 3.71E-11 | 6.05E-13 | 4.52E-10 | 4.09E-12 |
| 54 | 4.28E-12 | 1.97E-11 | 3.91E-11 | 6.12E-13 | 4.56E-10 | 4.15E-12 |
| 55 | 4.40E-12 | 2.02E-11 | 4.01E-11 | 6.12E-13 | 4.68E-10 | 4.22E-12 |
| 56 | 4.46E-12 | 2.07E-11 | 4.01E-11 | 1.21E-12 | 4.80E-10 | 4.28E-12 |
| 57 | 4.53E-12 | 2.12E-11 | 4.10E-11 | 6.98E-13 | 4.92E-10 | 4.34E-12 |
| 58 | 4.53E-12 | 2.15E-11 | 4.25E-11 | 6.59E-13 | 4.96E-10 | 4.40E-12 |
| 59 | 4.65E-12 | 2.19E-11 | 4.35E-11 | 6.82E-13 | 5.12E-10 | 4.40E-12 |
| 60 | 4.77E-12 | 2.22E-11 | 4.40E-11 | 1.33E-12 | 5.24E-10 | 4.46E-12 |
| 61 | 4.84E-12 | 2.27E-11 | 4.50E-11 | 7.28E-13 | 5.40E-10 | 4.59E-12 |
| 62 | 4.90E-12 | 2.32E-11 | 4.65E-11 | 7.36E-13 | 5.40E-10 | 4.59E-12 |
| 63 | 5.02E-12 | 2.34E-11 | 4.75E-11 | 7.36E-13 | 5.55E-10 | 4.65E-12 |
| 64 | 5.08E-12 | 2.42E-11 | 4.80E-11 | 1.46E-12 | 5.55E-10 | 4.71E-12 |
| 65 | 5.33E-12 | 2.47E-11 | 4.90E-11 | 7.98E-13 | 5.71E-10 | 4.77E-12 |
| 66 | 5.21E-12 | 2.49E-11 | 5.00E-11 | 7.90E-13 | 5.79E-10 | 4.84E-12 |
| 67 | 5.39E-12 | 2.54E-11 | 5.10E-11 | 7.91E-13 | 5.87E-10 | 4.96E-12 |
| 68 | 5.46E-12 | 2.62E-11 | 5.20E-11 | 1.52E-12 | 6.03E-10 | 5.02E-12 |
| 69 | 5.58E-12 | 2.64E-11 | 5.25E-11 | 8.52E-13 | 6.11E-10 | 5.08E-12 |
| 70 | 5.58E-12 | 2.69E-11 | 5.39E-11 | 8.76E-13 | 6.19E-10 | 5.08E-12 |
| 71 | 5.70E-12 | 2.74E-11 | 5.49E-11 | 8.84E-13 | 6.35E-10 | 5.21E-12 |
| 72 | 5.83E-12 | 2.81E-11 | 5.49E-11 | 1.64E-12 | 6.43E-10 | 5.27E-12 |
| 73 | 5.95E-12 | 2.84E-11 | 5.59E-11 | 9.30E-13 | 6.51E-10 | 5.33E-12 |
| 74 | 5.95E-12 | 2.99E-11 | 5.69E-11 | 9.76E-13 | 6.74E-10 | 5.39E-12 |
| 75 | 6.14E-12 | 3.11E-11 | 5.79E-11 | 1.02E-12 | 6.90E-10 | 5.46E-12 |
| 76 | 6.26E-12 | 3.11E-11 | 5.89E-11 | 1.83E-12 | 6.98E-10 | 5.58E-12 |
| 77 | 6.39E-12 | 3.11E-11 | 5.99E-11 | 1.04E-12 | 7.14E-10 | 5.70E-12 |
| 78 | 6.32E-12 | 3.11E-11 | 6.09E-11 | 9.76E-13 | 7.14E-10 | 5.64E-12 |
| 79 | 6.45E-12 | 3.19E-11 | 6.19E-11 | 1.07E-12 | 7.22E-10 | 5.77E-12 |
| 80 | 6.63E-12 | 3.26E-11 | 6.19E-11 | 1.97E-12 | 7.30E-10 | 5.83E-12 |
| 81 | 6.70E-12 | 3.26E-11 | 6.24E-11 | 1.08E-12 | 7.46E-10 | 5.95E-12 |
| 82 | 6.76E-12 | 3.31E-11 | 5.74E-11 | 1.08E-12 | 7.54E-10 | 5.95E-12 |
| 83 | 6.82E-12 | 3.36E-11 | 6.39E-11 | 1.12E-12 | 7.62E-10 | 6.01E-12 |
| 84 | 6.94E-12 | 3.46E-11 | 6.58E-11 | 2.11E-12 | 7.78E-10 | 6.08E-12 |
| 85 | 7.07E-12 | 3.46E-11 | 7.23E-11 | 1.12E-12 | 7.78E-10 | 6.20E-12 |
| 86 | 7.07E-12 | 3.46E-11 | 6.29E-11 | 1.21E-12 | 7.86E-10 | 6.26E-12 |
| 87 | 7.25E-12 | 3.51E-11 | 6.83E-11 | 1.19E-12 | 7.93E-10 | 6.39E-12 |
| 88 | 7.38E-12 | 3.56E-11 | 7.33E-11 | 2.09E-12 | 8.09E-10 | 6.32E-12 |
| 89 | 7.50E-12 | 3.56E-11 | 7.43E-11 | 1.22E-12 | 8.09E-10 | 6.39E-12 |
| 90 | 7.56E-12 | 3.61E-11 | 6.73E-11 | 1.26E-12 | 8.17E-10 | 6.57E-12 |
| 91 | 7.63E-12 | 3.66E-11 | 7.73E-11 | 1.26E-12 | 8.25E-10 | 6.57E-12 |
| 92 | 7.69E-12 | 3.66E-11 | 7.82E-11 | 2.22E-12 | 8.33E-10 | 6.63E-12 |
| 93 | 7.87E-12 | 3.71E-11 | 7.82E-11 | 1.29E-12 | 8.41E-10 | 6.76E-12 |
| 94 | 7.94E-12 | 3.71E-11 | 7.08E-11 | 1.26E-12 | 8.49E-10 | 6.70E-12 |
| 95 | 8.06E-12 | 3.76E-11 | 8.12E-11 | 1.30E-12 | 8.49E-10 | 6.82E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 28 1991 PART 1B | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 1 | 2.33E-14 | 4.65E-14 | 2.14E-12 | 5.89E-13 | 1.12E-13 | 8.91E-14 |
| 2 | 2.33E-14 | 4.26E-14 | 2.11E-12 | 6.05E-13 | 1.20E-13 | 9.30E-14 |
| 3 | 1.16E-14 | 5.04E-14 | 2.11E-12 | 5.81E-13 | 1.20E-13 | 9.30E-14 |
| 4 | 1.55E-14 | 5.04E-14 | 2.17E-12 | 5.81E-13 | 1.32E-13 | 1.01E-13 |
| 5 | 3.10E-14 | 3.49E-14 | 2.11E-12 | 5.19E-13 | 1.24E-13 | 1.05E-13 |
| 6 | 7.75E-15 | 2.71E-14 | 2.11E-12 | 5.74E-13 | 1.12E-13 | 1.05E-13 |
| 7 | 2.33E-14 | 5.43E-14 | 2.17E-12 | 5.42E-13 | 1.28E-13 | 1.01E-13 |
| 8 | 2.71E-14 | 4.65E-14 | 2.17E-12 | 5.66E-13 | 1.71E-13 | 1.08E-13 |
| 9 | 1.94E-14 | 3.88E-14 | 2.20E-12 | 6.28E-13 | 4.03E-13 | 9.69E-14 |
| 10 | 3.10E-14 | 6.98E-14 | 2.17E-12 | 6.67E-13 | 9.46E-13 | 1.09E-13 |
| 11 | 1.94E-14 | 1.09E-13 | 2.17E-12 | 7.21E-13 | 1.74E-12 | 1.16E-13 |
| 12 | 1.55E-14 | 1.55E-13 | 2.20E-12 | 8.45E-13 | 2.48E-12 | 1.16E-13 |
| 13 | 3.10E-14 | 2.33E-13 | 2.20E-12 | 8.68E-13 | 3.22E-12 | 1.63E-13 |
| 14 | 2.71E-14 | 3.02E-13 | 2.26E-12 | 9.14E-13 | 3.91E-12 | 1.01E-13 |
| 15 | 2.71E-14 | 4.19E-13 | 2.32E-12 | 1.02E-12 | 4.65E-12 | 1.63E-13 |
| 16 | 1.55E-14 | 4.73E-13 | 2.29E-12 | 1.04E-12 | 5.39E-12 | 1.16E-13 |
| 17 | 2.33E-14 | 5.74E-13 | 2.32E-12 | 1.15E-12 | 6.14E-12 | 1.40E-13 |
| 18 | 7.75E-15 | 6.12E-13 | 2.29E-12 | 1.19E-12 | 6.88E-12 | 1.32E-13 |
| 19 | 1.94E-14 | 7.05E-13 | 2.39E-12 | 1.30E-12 | 7.50E-12 | 1.71E-13 |
| 20 | 3.10E-14 | 7.36E-13 | 2.42E-12 | 1.38E-12 | 8.31E-12 | 1.39E-13 |
| 21 | 4.26E-14 | 8.22E-13 | 2.45E-12 | 1.44E-12 | 8.93E-12 | 2.02E-13 |
| 22 | 2.33E-14 | 8.99E-13 | 2.51E-12 | 1.57E-12 | 9.67E-12 | 1.71E-13 |
| 23 | 4.26E-14 | 9.76E-13 | 2.54E-12 | 1.63E-12 | 1.04E-11 | 1.86E-13 |
| 24 | 2.71E-14 | 1.05E-12 | 2.57E-12 | 1.72E-12 | 1.10E-11 | 2.17E-13 |
| 25 | 1.94E-14 | 1.10E-12 | 2.60E-12 | 1.78E-12 | 1.18E-11 | 2.25E-13 |
| 26 | 3.10E-14 | 1.21E-12 | 2.64E-12 | 1.89E-12 | 1.25E-11 | 2.48E-13 |
| 27 | 5.43E-14 | 1.29E-12 | 2.73E-12 | 1.95E-12 | 1.33E-11 | 2.32E-13 |
| 28 | 3.88E-14 | 1.43E-12 | 2.73E-12 | 2.01E-12 | 1.39E-11 | 2.56E-13 |
| 29 | 4.65E-14 | 1.50E-12 | 2.82E-12 | 2.11E-12 | 1.48E-11 | 2.48E-13 |
| 30 | 5.81E-14 | 1.60E-12 | 2.82E-12 | 2.26E-12 | 1.53E-11 | 2.40E-13 |
| 31 | 2.71E-14 | 1.67E-12 | 2.88E-12 | 2.29E-12 | 1.62E-11 | 2.48E-13 |
| 32 | 5.81E-14 | 1.81E-12 | 2.91E-12 | 2.36E-12 | 1.67E-11 | 2.94E-13 |
| 33 | 4.65E-14 | 1.92E-12 | 2.94E-12 | 2.48E-12 | 1.77E-11 | 2.64E-13 |
| 34 | 5.43E-14 | 1.98E-12 | 3.01E-12 | 2.51E-12 | 1.82E-11 | 2.71E-13 |
| 35 | 5.04E-14 | 2.14E-12 | 3.04E-12 | 2.64E-12 | 1.90E-11 | 2.87E-13 |
| 36 | 3.88E-14 | 2.17E-12 | 3.13E-12 | 2.67E-12 | 1.97E-11 | 2.79E-13 |
| 37 | 5.42E-14 | 2.32E-12 | 3.19E-12 | 2.79E-12 | 2.05E-11 | 3.26E-13 |
| 38 | 5.43E-14 | 2.45E-12 | 3.22E-12 | 2.85E-12 | 2.10E-11 | 3.18E-13 |
| 39 | 3.49E-14 | 2.45E-12 | 3.29E-12 | 2.94E-12 | 2.19E-11 | 3.33E-13 |
| 40 | 4.26E-14 | 2.57E-12 | 3.35E-12 | 3.04E-12 | 2.27E-11 | 2.94E-13 |
| 41 | 4.65E-14 | 2.67E-12 | 3.32E-12 | 3.10E-12 | 2.32E-11 | 3.02E-13 |
| 42 | 3.49E-14 | 2.70E-12 | 3.38E-12 | 3.13E-12 | 2.39E-11 | 3.26E-13 |
| 43 | 5.43E-14 | 2.85E-12 | 3.50E-12 | 3.32E-12 | 2.47E-11 | 3.33E-13 |
| 44 | 5.04E-14 | 2.94E-12 | 3.60E-12 | 3.38E-12 | 2.52E-11 | 3.02E-13 |
| 45 | 2.71E-14 | 2.98E-12 | 3.57E-12 | 3.41E-12 | 2.62E-11 | 3.49E-13 |
| 46 | 5.81E-14 | 3.04E-12 | 3.60E-12 | 3.47E-12 | 2.64E-11 | 3.57E-13 |
| 47 | 6.59E-14 | 3.13E-12 | 3.69E-12 | 3.60E-12 | 2.74E-11 | 3.64E-13 |
| 48 | 6.20E-14 | 3.26E-12 | 3.75E-12 | 3.69E-12 | 2.81E-11 | 3.64E-13 |
| 49 | 5.04E-14 | 3.32E-12 | 3.81E-12 | 3.75E-12 | 2.86E-11 | 3.88E-13 |
| 50 | 6.59E-14 | 3.32E-12 | 3.84E-12 | 3.78E-12 | 2.94E-11 | 3.95E-13 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 28 1991 PART 2B | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 51 | 6.20E-14 | 3.41E-12 | 3.97E-12 | 3.84E-12 | 2.99E-11 | 3.80E-13 |
| 52 | 6.59E-14 | 3.50E-12 | 3.97E-12 | 3.97E-12 | 3.06E-11 | 3.80E-13 |
| 53 | 3.88E-14 | 3.57E-12 | 4.09E-12 | 4.03E-12 | 3.11E-11 | 3.88E-13 |
| 54 | 7.75E-14 | 3.66E-12 | 4.15E-12 | 4.09E-12 | 3.19E-11 | 4.42E-13 |
| 55 | 5.81E-14 | 3.75E-12 | 4.22E-12 | 4.22E-12 | 3.26E-11 | 4.26E-13 |
| 56 | 5.42E-14 | 3.78E-12 | 4.28E-12 | 4.22E-12 | 3.36E-11 | 4.26E-13 |
| 57 | 6.20E-14 | 3.97E-12 | 4.34E-12 | 4.34E-12 | 3.41E-11 | 4.50E-13 |
| 58 | 5.81E-14 | 4.03E-12 | 4.40E-12 | 4.46E-12 | 3.46E-11 | 4.42E-13 |
| 59 | 7.75E-14 | 4.03E-12 | 4.40E-12 | 4.46E-12 | 3.56E-11 | 4.57E-13 |
| 60 | 5.81E-14 | 4.15E-12 | 4.46E-12 | 4.59E-12 | 3.66E-11 | 4.81E-13 |
| 61 | 7.75E-14 | 4.22E-12 | 4.59E-12 | 4.65E-12 | 3.66E-11 | 4.65E-13 |
| 62 | 8.91E-14 | 4.28E-12 | 4.59E-12 | 4.71E-12 | 3.71E-11 | 4.96E-13 |
| 63 | 6.59E-14 | 4.34E-12 | 4.65E-12 | 4.84E-12 | 3.81E-11 | 5.04E-13 |
| 64 | 7.75E-14 | 4.59E-12 | 4.71E-12 | 4.90E-12 | 3.86E-11 | 5.19E-13 |
| 65 | 7.75E-14 | 4.53E-12 | 4.77E-12 | 4.96E-12 | 3.96E-11 | 4.65E-13 |
| 66 | 7.75E-14 | 4.65E-12 | 4.84E-12 | 5.08E-12 | 4.01E-11 | 4.88E-13 |
| 67 | 6.20E-14 | 4.77E-12 | 4.96E-12 | 5.08E-12 | 4.10E-11 | 4.88E-13 |
| 68 | 9.30E-14 | 4.84E-12 | 5.02E-12 | 5.21E-12 | 4.15E-11 | 5.11E-13 |
| 69 | 8.14E-14 | 4.96E-12 | 5.08E-12 | 5.27E-12 | 4.25E-11 | 5.11E-13 |
| 70 | 8.14E-14 | 5.02E-12 | 5.08E-12 | 5.33E-12 | 4.30E-11 | 5.11E-13 |
| 71 | 9.30E-14 | 5.15E-12 | 5.21E-12 | 5.39E-12 | 4.35E-11 | 5.27E-13 |
| 72 | 8.14E-14 | 5.21E-12 | 5.27E-12 | 5.52E-12 | 4.45E-11 | 5.66E-13 |
| 73 | 8.53E-14 | 5.33E-12 | 5.33E-12 | 5.58E-12 | 4.45E-11 | 5.74E-13 |
| 74 | 8.52E-14 | 5.70E-12 | 5.39E-12 | 5.77E-12 | 4.70E-11 | 5.97E-13 |
| 75 | 9.30E-14 | 5.83E-12 | 5.46E-12 | 5.89E-12 | 4.80E-11 | 6.36E-13 |
| 76 | 9.69E-14 | 5.89E-12 | 5.58E-12 | 6.01E-12 | 4.85E-11 | 6.98E-13 |
| 77 | 7.75E-14 | 5.83E-12 | 5.70E-12 | 5.95E-12 | 4.90E-11 | 6.43E-13 |
| 78 | 8.91E-14 | 5.83E-12 | 5.64E-12 | 6.01E-12 | 4.90E-11 | 6.74E-13 |
| 79 | 8.53E-14 | 5.95E-12 | 5.77E-12 | 6.14E-12 | 5.00E-11 | 6.82E-13 |
| 80 | 8.53E-14 | 6.08E-12 | 5.83E-12 | 6.20E-12 | 5.10E-11 | 6.82E-13 |
| 81 | 1.16E-13 | 6.08E-12 | 5.95E-12 | 6.32E-12 | 5.15E-11 | 6.59E-13 |
| 82 | 1.12E-13 | 6.20E-12 | 5.95E-12 | 6.39E-12 | 5.20E-11 | 6.67E-13 |
| 83 | 8.14E-14 | 6.26E-12 | 6.01E-12 | 6.39E-12 | 5.29E-11 | 6.74E-13 |
| 84 | 1.01E-13 | 6.39E-12 | 6.08E-12 | 6.51E-12 | 5.34E-11 | 6.43E-13 |
| 85 | 8.91E-14 | 6.39E-12 | 6.20E-12 | 6.57E-12 | 5.39E-11 | 6.98E-13 |
| 86 | 1.05E-13 | 6.51E-12 | 6.26E-12 | 6.57E-12 | 5.39E-11 | 6.51E-13 |
| 87 | 1.01E-13 | 6.57E-12 | 6.39E-12 | 6.70E-12 | 5.49E-11 | 7.05E-13 |
| 88 | 1.01E-13 | 6.63E-12 | 6.32E-12 | 6.76E-12 | 5.54E-11 | 6.82E-13 |
| 89 | 9.30E-14 | 6.70E-12 | 6.39E-12 | 6.76E-12 | 5.59E-11 | 7.21E-13 |
| 90 | 1.01E-13 | 6.70E-12 | 6.57E-12 | 6.82E-12 | 5.64E-11 | 7.13E-13 |
| 91 | 8.91E-14 | 6.82E-12 | 6.57E-12 | 6.94E-12 | 5.69E-11 | 6.90E-13 |
| 92 | 1.20E-13 | 6.82E-12 | 6.63E-12 | 7.07E-12 | 5.74E-11 | 7.21E-13 |
| 93 | 1.16E-13 | 6.94E-12 | 6.76E-12 | 7.13E-12 | 5.84E-11 | 7.28E-13 |
| 94 | 1.24E-13 | 6.94E-12 | 6.70E-12 | 7.13E-12 | 5.89E-11 | 7.75E-13 |
| 95 | 1.12E-13 | 7.01E-12 | 6.82E-12 | 7.25E-12 | 5.94E-11 | 7.36E-13 |

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10    OPTION BASE 1
20    COM D1(95,11),D2(95,11),D3(95,11)
30    GOTO Bypass
40    ASSIGN @Ab TO "PKDC082791"
50    ENTER @Ab;D1(*)
60    ASSIGN @Ab TO "PKDC082891"
70    ENTER @Ab;D2(*)
80    ASSIGN @Ab TO "PKDC082991"
90    ENTER @Ab;D3(*)
100   BEEP
110   PAUSE
120   Bypass:
130       PRINT
131       PRINT
132   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 29 1991  PART 1A"
133   PRINT "    SCAN          44          40          32          30          28
134   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
135       FOR I=1 TO 50
136   PRINT USING 134;I,D3(I,1),D3(I,2),D3(I,3),D3(I,4),D3(I,5),D3(I,8)
137   NEXT I
138   PRINT CHR$(12)
139   PRINT
140   PRINT
141   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 29 1991  PART 2A"
142   PRINT "    SCAN          44          40          32          30          28
143   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
144       FOR I=51 TO 95
145   PRINT USING 143;I,D3(I,1),D3(I,2),D3(I,3),D3(I,4),D3(I,5),D3(I,8)
146   NEXT I
147   PRINT CHR$(12)
301       PRINT
302       PRINT
303   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 29 1991  PART 1B"
304   PRINT "    SCAN          22          20          18          16          14
305   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
306       FOR I=1 TO 50
307   PRINT USING 305;I,D3(I,6),D3(I,7),D3(I,8),D3(I,9),D3(I,10),D3(I,11)
308   NEXT I
309   PRINT CHR$(12)
310   PRINT
311   PRINT
312   PRINT "          PEAKS FROM    DYNAMIC CALIBRATION DATA AUGUST 29 1991  PART 2B"
313   PRINT "    SCAN          22          20          18          16          14
314   IMAGE DDDD,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE,3X,MD.DDE
315       FOR I=51 TO 95
316   PRINT USING 314;I,D3(I,6),D3(I,7),D3(I,8),D3(I,9),D3(I,10),D3(I,11)
317   NEXT I
318   PRINT CHR$(12)
319   END

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| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 PART 1A | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 1 | 9.30E-13 | 1.20E-13 | 5.43E-14 | 2.71E-14 | 4.96E-12 | 9.92E-13 |
| 2 | 8.99E-13 | 1.05E-13 | 3.49E-14 | 3.49E-14 | 5.02E-12 | 1.04E-12 |
| 3 | 9.30E-13 | 1.05E-13 | 4.26E-14 | 3.49E-14 | 4.90E-12 | 1.04E-12 |
| 4 | 9.46E-13 | 1.32E-13 | 8.14E-14 | 4.26E-14 | 6.45E-12 | 1.02E-12 |
| 5 | 9.46E-13 | 2.64E-13 | 3.33E-13 | 3.10E-14 | 1.35E-11 | 1.02E-12 |
| 6 | 1.02E-12 | 5.66E-13 | 7.36E-13 | 3.49E-14 | 2.37E-11 | 1.04E-12 |
| 7 | 1.05E-12 | 9.92E-13 | 1.21E-12 | 3.88E-14 | 3.41E-11 | 1.05E-12 |
| 8 | 1.12E-12 | 1.38E-12 | 1.69E-12 | 5.04E-14 | 4.40E-11 | 1.07E-12 |
| 9 | 1.15E-12 | 1.78E-12 | 2.36E-12 | 5.04E-14 | 5.39E-11 | 1.05E-12 |
| 10 | 1.19E-12 | 2.08E-12 | 3.01E-12 | 4.65E-14 | 6.24E-11 | 1.16E-12 |
| 11 | 1.30E-12 | 2.48E-12 | 3.72E-12 | 6.98E-14 | 7.43E-11 | 1.15E-12 |
| 12 | 1.35E-12 | 2.85E-12 | 4.40E-12 | 7.75E-14 | 8.12E-11 | 1.12E-12 |
| 13 | 1.40E-12 | 3.35E-12 | 5.21E-12 | 5.81E-14 | 9.31E-11 | 1.15E-12 |
| 14 | 1.44E-12 | 3.53E-12 | 5.95E-12 | 7.36E-14 | 1.02E-10 | 1.19E-12 |
| 15 | 1.49E-12 | 3.87E-12 | 6.82E-12 | 6.20E-14 | 1.10E-10 | 1.18E-12 |
| 16 | 1.55E-12 | 4.15E-12 | 7.69E-12 | 5.81E-14 | 1.19E-10 | 1.22E-12 |
| 17 | 1.58E-12 | 4.59E-12 | 8.68E-12 | 7.36E-14 | 1.31E-10 | 1.24E-12 |
| 18 | 1.67E-12 | 4.96E-12 | 9.42E-12 | 1.05E-13 | 1.39E-10 | 1.29E-12 |
| 19 | 1.74E-12 | 5.39E-12 | 1.04E-11 | 7.75E-14 | 1.49E-10 | 1.29E-12 |
| 20 | 1.75E-12 | 5.83E-12 | 1.14E-11 | 8.91E-14 | 1.57E-10 | 1.32E-12 |
| 21 | 1.86E-12 | 6.45E-12 | 1.22E-11 | 9.30E-14 | 1.67E-10 | 1.38E-12 |
| 22 | 1.89E-12 | 6.94E-12 | 1.31E-11 | 1.01E-13 | 1.76E-10 | 1.41E-12 |
| 23 | 1.98E-12 | 7.32E-12 | 1.41E-11 | 1.20E-13 | 1.84E-10 | 1.40E-12 |
| 24 | 2.08E-12 | 8.00E-12 | 1.50E-11 | 1.16E-13 | 1.94E-10 | 1.46E-12 |
| 25 | 2.08E-12 | 8.68E-12 | 1.60E-11 | 1.24E-13 | 2.06E-10 | 1.46E-12 |
| 26 | 2.17E-12 | 9.30E-12 | 1.70E-11 | 1.55E-13 | 2.14E-10 | 1.53E-12 |
| 27 | 2.23E-12 | 9.67E-12 | 1.80E-11 | 1.47E-13 | 2.22E-10 | 1.50E-12 |
| 28 | 2.29E-12 | 1.03E-11 | 1.90E-11 | 1.24E-13 | 2.32E-10 | 1.50E-12 |
| 29 | 2.32E-12 | 1.10E-11 | 1.97E-11 | 1.32E-13 | 2.42E-10 | 1.58E-12 |
| 30 | 2.42E-12 | 1.15E-11 | 2.07E-11 | 1.55E-13 | 2.50E-10 | 1.63E-12 |
| 31 | 2.48E-12 | 1.19E-11 | 2.15E-11 | 1.86E-13 | 2.52E-10 | 1.64E-12 |
| 32 | 2.57E-12 | 1.24E-11 | 2.24E-11 | 1.71E-13 | 2.62E-10 | 1.69E-12 |
| 33 | 2.64E-12 | 1.30E-11 | 2.37E-11 | 1.55E-13 | 2.78E-10 | 1.74E-12 |
| 34 | 2.67E-12 | 1.35E-11 | 2.44E-11 | 1.94E-13 | 2.94E-10 | 1.77E-12 |
| 35 | 2.76E-12 | 1.39E-11 | 2.54E-11 | 2.09E-13 | 2.90E-10 | 1.80E-12 |
| 36 | 2.85E-12 | 1.43E-11 | 2.62E-11 | 2.17E-13 | 2.94E-10 | 1.84E-12 |
| 37 | 2.88E-12 | 1.49E-11 | 2.72E-11 | 1.86E-13 | 3.17E-10 | 1.84E-12 |
| 38 | 2.94E-12 | 1.53E-11 | 2.81E-11 | 2.33E-13 | 3.25E-10 | 1.95E-12 |
| 39 | 3.01E-12 | 1.54E-11 | 2.91E-11 | 2.48E-13 | 3.25E-10 | 1.95E-12 |
| 40 | 3.07E-12 | 1.60E-11 | 2.99E-11 | 2.40E-13 | 3.33E-10 | 1.95E-12 |
| 41 | 3.16E-12 | 1.65E-11 | 3.11E-11 | 2.48E-13 | 3.53E-10 | 1.98E-12 |
| 42 | 3.22E-12 | 1.67E-11 | 3.26E-11 | 2.79E-13 | 3.65E-10 | 2.11E-12 |
| 43 | 3.29E-12 | 1.70E-11 | 3.31E-11 | 2.94E-13 | 3.65E-10 | 2.08E-12 |
| 44 | 3.44E-12 | 1.75E-11 | 3.41E-11 | 3.02E-13 | 3.69E-10 | 2.17E-12 |
| 45 | 3.44E-12 | 1.80E-11 | 3.56E-11 | 3.10E-13 | 3.89E-10 | 2.20E-12 |
| 46 | 3.57E-12 | 1.85E-11 | 3.66E-11 | 3.10E-13 | 3.97E-10 | 2.23E-12 |
| 47 | 3.60E-12 | 1.85E-11 | 3.71E-11 | 3.10E-13 | 3.93E-10 | 2.26E-12 |
| 48 | 3.69E-12 | 1.90E-11 | 3.81E-11 | 3.72E-13 | 4.09E-10 | 2.32E-12 |
| 49 | 3.75E-12 | 1.97E-11 | 3.91E-11 | 3.56E-13 | 4.28E-10 | 2.32E-12 |
| 50 | 3.78E-12 | 2.02E-11 | 4.05E-11 | 3.64E-13 | 4.36E-10 | 2.42E-12 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 PART 2A | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 44 | 40 | 32 | 30 | 28 | 18 |
| 51 | 3.97E-12 | 2.02E-11 | 4.10E-11 | 3.80E-13 | 4.40E-10 | 2.39E-12 |
| 52 | 4.03E-12 | 2.05E-11 | 4.20E-11 | 3.72E-13 | 4.44E-10 | 2.42E-12 |
| 53 | 4.09E-12 | 2.12E-11 | 4.30E-11 | 4.26E-13 | 4.64E-10 | 2.51E-12 |
| 54 | 4.15E-12 | 2.17E-11 | 4.40E-11 | 4.34E-13 | 4.72E-10 | 2.54E-12 |
| 55 | 4.28E-12 | 2.19E-11 | 4.45E-11 | 4.34E-13 | 4.80E-10 | 2.57E-12 |
| 56 | 4.40E-12 | 2.24E-11 | 4.60E-11 | 4.57E-13 | 4.80E-10 | 2.57E-12 |
| 57 | 4.40E-12 | 2.29E-11 | 4.70E-11 | 4.65E-13 | 5.00E-10 | 2.70E-12 |
| 58 | 4.46E-12 | 2.34E-11 | 4.80E-11 | 4.88E-13 | 5.16E-10 | 2.70E-12 |
| 59 | 4.59E-12 | 2.34E-11 | 4.90E-11 | 5.04E-13 | 5.08E-10 | 2.79E-12 |
| 60 | 4.65E-12 | 2.42E-11 | 5.00E-11 | 5.04E-13 | 5.32E-10 | 2.82E-12 |
| 61 | 4.77E-12 | 2.47E-11 | 5.10E-11 | 5.58E-13 | 5.47E-10 | 2.85E-12 |
| 62 | 4.84E-12 | 2.49E-11 | 5.20E-11 | 5.35E-13 | 5.55E-10 | 2.94E-12 |
| 63 | 4.96E-12 | 2.54E-11 | 5.29E-11 | 5.50E-13 | 5.55E-10 | 2.88E-12 |
| 64 | 5.02E-12 | 2.62E-11 | 5.39E-11 | 5.81E-13 | 5.71E-10 | 2.94E-12 |
| 65 | 5.15E-12 | 2.64E-11 | 5.49E-11 | 5.66E-13 | 5.87E-10 | 3.04E-12 |
| 66 | 5.21E-12 | 2.69E-11 | 5.59E-11 | 5.89E-13 | 5.95E-10 | 3.10E-12 |
| 67 | 5.33E-12 | 2.77E-11 | 5.64E-11 | 6.36E-13 | 5.95E-10 | 3.07E-12 |
| 68 | 5.46E-12 | 2.81E-11 | 5.79E-11 | 6.05E-13 | 6.03E-10 | 3.10E-12 |
| 69 | 5.46E-12 | 2.84E-11 | 5.84E-11 | 6.36E-13 | 6.35E-10 | 3.19E-12 |
| 70 | 5.64E-12 | 3.09E-11 | 5.94E-11 | 6.90E-13 | 6.59E-10 | 3.29E-12 |
| 71 | 5.77E-12 | 3.09E-11 | 6.04E-11 | 7.13E-13 | 6.51E-10 | 3.26E-12 |
| 72 | 5.89E-12 | 3.06E-11 | 6.09E-11 | 7.21E-13 | 6.66E-10 | 3.32E-12 |
| 73 | 5.95E-12 | 3.09E-11 | 6.24E-11 | 7.21E-13 | 6.82E-10 | 3.38E-12 |
| 74 | 6.08E-12 | 3.11E-11 | 6.24E-11 | 7.75E-13 | 6.90E-10 | 3.47E-12 |
| 75 | 6.14E-12 | 3.11E-11 | 6.49E-11 | 7.52E-13 | 6.90E-10 | 3.47E-12 |
| 76 | 6.32E-12 | 3.26E-11 | 6.49E-11 | 7.75E-13 | 7.06E-10 | 3.50E-12 |
| 77 | 6.39E-12 | 3.26E-11 | 6.44E-11 | 7.75E-13 | 7.14E-10 | 3.53E-12 |
| 78 | 6.39E-12 | 3.31E-11 | 6.58E-11 | 8.14E-13 | 7.30E-10 | 3.66E-12 |
| 79 | 6.57E-12 | 3.36E-11 | 7.03E-11 | 8.68E-13 | 7.22E-10 | 3.63E-12 |
| 80 | 6.70E-12 | 3.36E-11 | 7.23E-11 | 8.76E-13 | 7.38E-10 | 3.69E-12 |
| 81 | 6.76E-12 | 3.41E-11 | 7.33E-11 | 8.60E-13 | 7.54E-10 | 3.75E-12 |
| 82 | 6.82E-12 | 3.46E-11 | 7.33E-11 | 8.76E-13 | 7.62E-10 | 3.81E-12 |
| 83 | 7.01E-12 | 3.46E-11 | 7.33E-11 | 8.99E-13 | 7.62E-10 | 3.81E-12 |
| 84 | 7.07E-12 | 3.56E-11 | 7.53E-11 | 8.84E-13 | 7.70E-10 | 3.87E-12 |
| 85 | 7.13E-12 | 3.56E-11 | 7.53E-11 | 9.14E-13 | 7.78E-10 | 3.97E-12 |
| 86 | 7.25E-12 | 3.61E-11 | 7.73E-11 | 9.30E-13 | 7.93E-10 | 4.03E-12 |
| 87 | 7.32E-12 | 3.66E-11 | 7.82E-11 | 9.46E-13 | 7.86E-10 | 4.09E-12 |
| 88 | 7.50E-12 | 3.66E-11 | 7.92E-11 | 9.76E-13 | 7.93E-10 | 4.09E-12 |
| 89 | 7.63E-12 | 3.71E-11 | 8.12E-11 | 9.76E-13 | 8.17E-10 | 4.15E-12 |
| 90 | 7.63E-12 | 3.71E-11 | 8.12E-11 | 9.92E-13 | 8.25E-10 | 4.22E-12 |
| 91 | 7.94E-12 | 3.76E-11 | 8.22E-11 | 1.02E-12 | 8.41E-10 | 4.22E-12 |
| 92 | 8.06E-12 | 3.86E-11 | 8.22E-11 | 9.92E-13 | 8.33E-10 | 4.34E-12 |
| 93 | 8.31E-12 | 3.91E-11 | 8.32E-11 | 1.04E-12 | 8.49E-10 | 4.34E-12 |
| 94 | 8.18E-12 | 3.91E-11 | 8.52E-11 | 1.07E-12 | 8.57E-10 | 4.40E-12 |
| 95 | 8.43E-12 | 3.96E-11 | 8.52E-11 | 1.08E-12 | 8.65E-10 | 4.46E-12 |

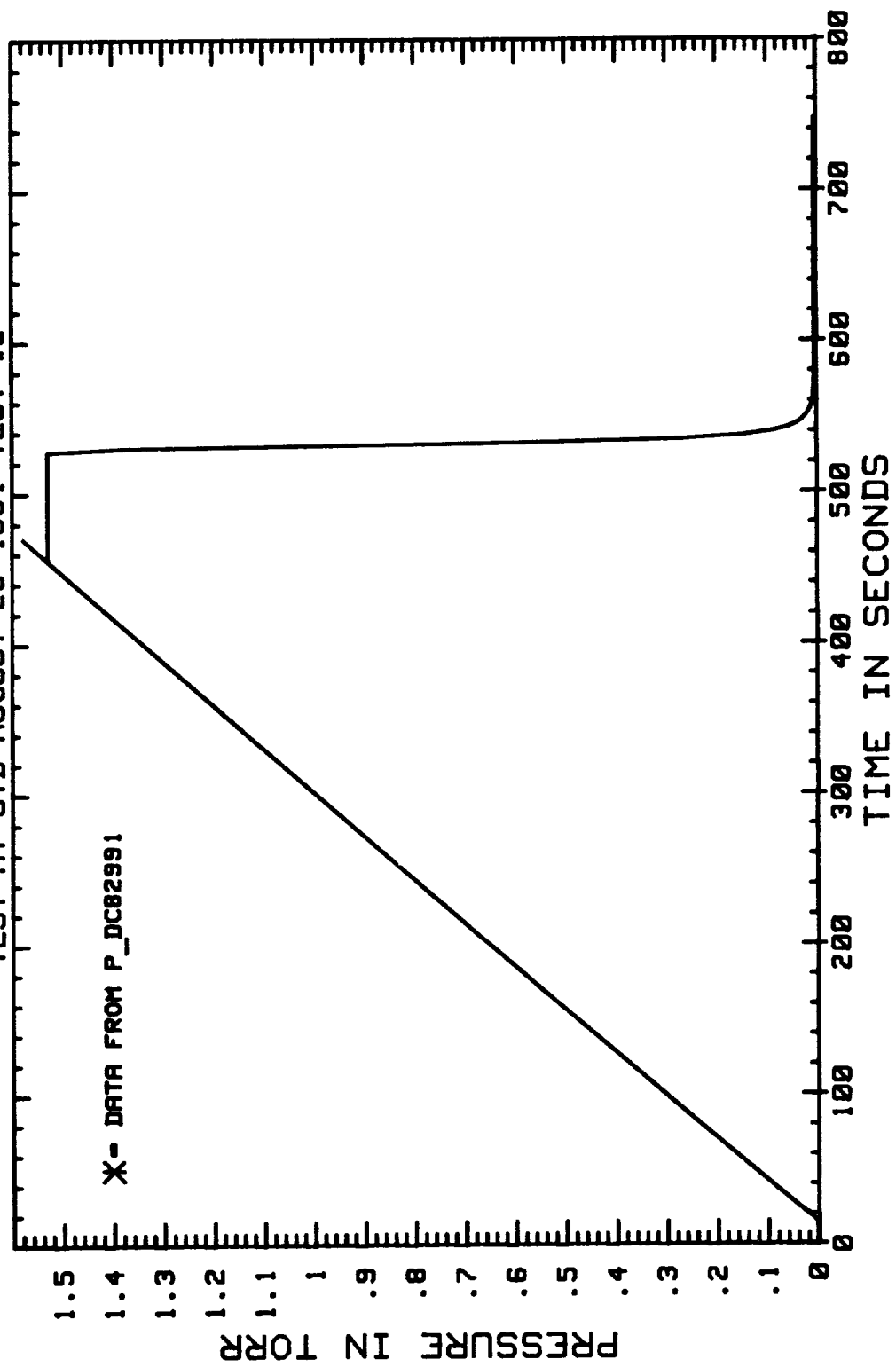
| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 PART 1B | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 1 | 2.33E-14 | 3.49E-14 | 9.92E-13 | 3.10E-13 | 9.69E-14 | 8.14E-14 |
| 2 | 1.55E-14 | 2.33E-14 | 1.04E-12 | 2.94E-13 | 8.91E-14 | 6.98E-14 |
| 3 | 1.55E-14 | 2.71E-14 | 1.04E-12 | 3.02E-13 | 8.52E-14 | 7.75E-14 |
| 4 | 2.71E-14 | 3.88E-14 | 1.02E-12 | 3.41E-13 | 2.64E-13 | 8.91E-14 |
| 5 | 7.75E-15 | 5.04E-14 | 1.02E-12 | 3.33E-13 | 8.53E-13 | 7.75E-14 |
| 6 | 1.55E-14 | 7.75E-14 | 1.04E-12 | 4.11E-13 | 1.58E-12 | 6.20E-14 |
| 7 | 0.00E+00 | 1.01E-13 | 1.05E-12 | 4.96E-13 | 2.36E-12 | 5.81E-14 |
| 8 | 1.16E-14 | 1.63E-13 | 1.07E-12 | 5.27E-13 | 3.10E-12 | 7.75E-14 |
| 9 | 3.49E-14 | 2.64E-13 | 1.05E-12 | 6.51E-13 | 3.75E-12 | 1.16E-13 |
| 10 | 1.16E-14 | 3.33E-13 | 1.16E-12 | 7.05E-13 | 4.46E-12 | 1.01E-13 |
| 11 | 4.26E-14 | 4.34E-13 | 1.15E-12 | 7.91E-13 | 5.15E-12 | 1.12E-13 |
| 12 | 7.75E-15 | 4.57E-13 | 1.12E-12 | 8.52E-13 | 5.89E-12 | 1.12E-13 |
| 13 | 3.49E-14 | 5.42E-13 | 1.15E-12 | 9.46E-13 | 6.57E-12 | 1.09E-13 |
| 14 | 1.16E-14 | 5.74E-13 | 1.19E-12 | 1.01E-12 | 7.13E-12 | 1.09E-13 |
| 15 | 2.33E-14 | 5.89E-13 | 1.18E-12 | 1.10E-12 | 7.69E-12 | 1.20E-13 |
| 16 | 2.33E-14 | 6.82E-13 | 1.22E-12 | 1.15E-12 | 8.43E-12 | 1.08E-13 |
| 17 | 1.55E-14 | 7.60E-13 | 1.24E-12 | 1.29E-12 | 9.30E-12 | 1.47E-13 |
| 18 | 1.94E-14 | 8.22E-13 | 1.29E-12 | 1.38E-12 | 9.92E-12 | 1.32E-13 |
| 19 | 2.33E-14 | 9.92E-13 | 1.29E-12 | 1.43E-12 | 1.05E-11 | 2.02E-13 |
| 20 | 2.33E-14 | 1.02E-12 | 1.32E-12 | 1.49E-12 | 1.12E-11 | 1.43E-13 |
| 21 | 3.49E-14 | 1.16E-12 | 1.38E-12 | 1.58E-12 | 1.20E-11 | 1.78E-13 |
| 22 | 2.33E-14 | 1.26E-12 | 1.41E-12 | 1.74E-12 | 1.28E-11 | 1.63E-13 |
| 23 | 5.04E-14 | 1.35E-12 | 1.40E-12 | 1.78E-12 | 1.33E-11 | 1.86E-13 |
| 24 | 4.65E-14 | 1.40E-12 | 1.46E-12 | 1.83E-12 | 1.39E-11 | 1.63E-13 |
| 25 | 3.49E-14 | 1.52E-12 | 1.46E-12 | 1.98E-12 | 1.48E-11 | 1.78E-13 |
| 26 | 5.04E-14 | 1.66E-12 | 1.53E-12 | 2.05E-12 | 1.55E-11 | 1.71E-13 |
| 27 | 3.88E-14 | 1.74E-12 | 1.50E-12 | 2.11E-12 | 1.62E-11 | 2.09E-13 |
| 28 | 4.65E-14 | 1.84E-12 | 1.50E-12 | 2.23E-12 | 1.70E-11 | 2.25E-13 |
| 29 | 3.49E-14 | 2.01E-12 | 1.58E-12 | 2.32E-12 | 1.75E-11 | 2.17E-13 |
| 30 | 3.88E-14 | 2.11E-12 | 1.63E-12 | 2.42E-12 | 1.82E-11 | 1.94E-13 |
| 31 | 3.88E-14 | 2.20E-12 | 1.64E-12 | 2.45E-12 | 1.90E-11 | 2.40E-13 |
| 32 | 5.04E-14 | 2.26E-12 | 1.69E-12 | 2.57E-12 | 1.95E-11 | 2.40E-13 |
| 33 | 3.88E-14 | 2.32E-12 | 1.74E-12 | 2.64E-12 | 2.02E-11 | 2.25E-13 |
| 34 | 3.49E-14 | 2.48E-12 | 1.77E-12 | 2.76E-12 | 2.12E-11 | 2.40E-13 |
| 35 | 2.71E-14 | 2.51E-12 | 1.80E-12 | 2.79E-12 | 2.17E-11 | 2.64E-13 |
| 36 | 5.04E-14 | 2.64E-12 | 1.84E-12 | 2.91E-12 | 2.24E-11 | 2.71E-13 |
| 37 | 5.04E-14 | 2.70E-12 | 1.84E-12 | 2.98E-12 | 2.32E-11 | 2.64E-13 |
| 38 | 4.65E-14 | 2.79E-12 | 1.95E-12 | 3.04E-12 | 2.37E-11 | 2.56E-13 |
| 39 | 5.04E-14 | 2.85E-12 | 1.95E-12 | 3.13E-12 | 2.42E-11 | 2.87E-13 |
| 40 | 5.42E-14 | 2.88E-12 | 1.95E-12 | 3.16E-12 | 2.49E-11 | 2.79E-13 |
| 41 | 3.49E-14 | 3.01E-12 | 1.98E-12 | 3.29E-12 | 2.57E-11 | 3.02E-13 |
| 42 | 3.88E-14 | 3.07E-12 | 2.11E-12 | 3.41E-12 | 2.64E-11 | 3.02E-13 |
| 43 | 4.65E-14 | 3.10E-12 | 2.08E-12 | 3.44E-12 | 2.69E-11 | 3.26E-13 |
| 44 | 5.42E-14 | 3.19E-12 | 2.17E-12 | 3.53E-12 | 2.74E-11 | 3.64E-13 |
| 45 | 6.59E-14 | 3.26E-12 | 2.20E-12 | 3.69E-12 | 2.84E-11 | 3.18E-13 |
| 46 | 5.81E-14 | 3.41E-12 | 2.23E-12 | 3.72E-12 | 2.91E-11 | 2.94E-13 |
| 47 | 5.04E-14 | 3.41E-12 | 2.26E-12 | 3.78E-12 | 2.96E-11 | 2.94E-13 |
| 48 | 3.10E-14 | 3.50E-12 | 2.32E-12 | 3.87E-12 | 3.01E-11 | 3.57E-13 |
| 49 | 5.04E-14 | 3.60E-12 | 2.32E-12 | 3.97E-12 | 3.11E-11 | 3.10E-13 |
| 50 | 6.20E-14 | 3.72E-12 | 2.42E-12 | 4.03E-12 | 3.11E-11 | 3.49E-13 |

| PEAKS FROM DYNAMIC CALIBRATION DATA AUGUST 29 1991 PART 2B | | | | | | |
|--|----------|----------|----------|----------|----------|----------|
| SCAN | 22 | 20 | 18 | 16 | 14 | 12 |
| 51 | 6.20E-14 | 3.72E-12 | 2.39E-12 | 4.09E-12 | 3.26E-11 | 3.64E-13 |
| 52 | 5.43E-14 | 3.78E-12 | 2.42E-12 | 4.22E-12 | 3.31E-11 | 3.64E-13 |
| 53 | 5.81E-14 | 3.91E-12 | 2.51E-12 | 4.28E-12 | 3.41E-11 | 3.72E-13 |
| 54 | 7.75E-14 | 4.03E-12 | 2.54E-12 | 4.34E-12 | 3.46E-11 | 4.03E-13 |
| 55 | 6.98E-14 | 4.03E-12 | 2.57E-12 | 4.46E-12 | 3.56E-11 | 4.34E-13 |
| 56 | 5.42E-14 | 4.09E-12 | 2.57E-12 | 4.53E-12 | 3.61E-11 | 4.34E-13 |
| 57 | 5.81E-14 | 4.22E-12 | 2.70E-12 | 4.65E-12 | 3.66E-11 | 3.88E-13 |
| 58 | 5.42E-14 | 4.28E-12 | 2.70E-12 | 4.71E-12 | 3.76E-11 | 4.26E-13 |
| 59 | 5.42E-14 | 4.40E-12 | 2.79E-12 | 4.77E-12 | 3.81E-11 | 4.34E-13 |
| 60 | 6.98E-14 | 4.53E-12 | 2.82E-12 | 4.84E-12 | 3.86E-11 | 4.26E-13 |
| 61 | 6.20E-14 | 4.53E-12 | 2.85E-12 | 4.96E-12 | 3.96E-11 | 4.26E-13 |
| 62 | 6.98E-14 | 4.65E-12 | 2.94E-12 | 5.02E-12 | 4.05E-11 | 4.57E-13 |
| 63 | 4.65E-14 | 4.71E-12 | 2.88E-12 | 5.08E-12 | 4.10E-11 | 4.57E-13 |
| 64 | 5.42E-14 | 4.84E-12 | 2.94E-12 | 5.27E-12 | 4.15E-11 | 4.73E-13 |
| 65 | 9.30E-14 | 4.90E-12 | 3.04E-12 | 5.27E-12 | 4.25E-11 | 4.81E-13 |
| 66 | 6.98E-14 | 4.96E-12 | 3.10E-12 | 5.39E-12 | 4.30E-11 | 4.65E-13 |
| 67 | 6.98E-14 | 5.08E-12 | 3.07E-12 | 5.46E-12 | 4.35E-11 | 5.04E-13 |
| 68 | 6.98E-14 | 5.21E-12 | 3.10E-12 | 5.52E-12 | 4.40E-11 | 5.19E-13 |
| 69 | 6.98E-14 | 5.46E-12 | 3.19E-12 | 5.70E-12 | 4.65E-11 | 5.43E-13 |
| 70 | 7.36E-14 | 5.77E-12 | 3.29E-12 | 5.83E-12 | 4.75E-11 | 5.66E-13 |
| 71 | 7.75E-14 | 5.77E-12 | 3.26E-12 | 5.89E-12 | 4.80E-11 | 5.58E-13 |
| 72 | 8.91E-14 | 5.70E-12 | 3.32E-12 | 5.95E-12 | 4.85E-11 | 6.05E-13 |
| 73 | 8.91E-14 | 5.77E-12 | 3.38E-12 | 6.08E-12 | 4.95E-11 | 5.89E-13 |
| 74 | 7.75E-14 | 5.89E-12 | 3.47E-12 | 6.14E-12 | 5.05E-11 | 6.12E-13 |
| 75 | 1.01E-13 | 5.95E-12 | 3.47E-12 | 6.20E-12 | 5.05E-11 | 5.97E-13 |
| 76 | 7.36E-14 | 6.01E-12 | 3.50E-12 | 6.26E-12 | 5.10E-11 | 6.20E-13 |
| 77 | 8.53E-14 | 6.08E-12 | 3.53E-12 | 6.39E-12 | 5.20E-11 | 5.97E-13 |
| 78 | 8.14E-14 | 6.08E-12 | 3.66E-12 | 6.45E-12 | 5.29E-11 | 5.97E-13 |
| 79 | 9.30E-14 | 6.20E-12 | 3.63E-12 | 6.57E-12 | 5.29E-11 | 6.67E-13 |
| 80 | 1.12E-13 | 6.26E-12 | 3.69E-12 | 6.63E-12 | 5.39E-11 | 6.36E-13 |
| 81 | 1.08E-13 | 6.32E-12 | 3.75E-12 | 6.70E-12 | 5.44E-11 | 6.28E-13 |
| 82 | 9.30E-14 | 6.45E-12 | 3.81E-12 | 6.76E-12 | 5.54E-11 | 6.28E-13 |
| 83 | 8.91E-14 | 6.45E-12 | 3.81E-12 | 6.82E-12 | 5.59E-11 | 7.13E-13 |
| 84 | 9.30E-14 | 6.51E-12 | 3.87E-12 | 6.88E-12 | 5.59E-11 | 6.82E-13 |
| 85 | 1.01E-13 | 6.57E-12 | 3.97E-12 | 7.01E-12 | 5.69E-11 | 6.98E-13 |
| 86 | 1.05E-13 | 6.63E-12 | 4.03E-12 | 7.13E-12 | 5.74E-11 | 6.98E-13 |
| 87 | 8.91E-14 | 6.76E-12 | 4.09E-12 | 7.19E-12 | 5.79E-11 | 6.90E-13 |
| 88 | 9.30E-14 | 6.82E-12 | 4.09E-12 | 7.25E-12 | 5.84E-11 | 6.59E-13 |
| 89 | 1.05E-13 | 6.88E-12 | 4.15E-12 | 7.38E-12 | 5.89E-11 | 6.59E-13 |
| 90 | 1.05E-13 | 6.94E-12 | 4.22E-12 | 7.44E-12 | 5.99E-11 | 7.05E-13 |
| 91 | 1.09E-13 | 7.07E-12 | 4.22E-12 | 7.56E-12 | 6.04E-11 | 7.13E-13 |
| 92 | 9.30E-14 | 7.13E-12 | 4.34E-12 | 7.56E-12 | 6.04E-11 | 7.13E-13 |
| 93 | 1.05E-13 | 7.19E-12 | 4.34E-12 | 7.63E-12 | 6.19E-11 | 6.98E-13 |
| 94 | 1.12E-13 | 7.25E-12 | 4.40E-12 | 7.87E-12 | 6.24E-11 | 7.36E-13 |
| 95 | 1.16E-13 | 7.38E-12 | 4.46E-12 | 8.06E-12 | 6.24E-11 | 7.60E-13 |

1.0 SUMS Calibration Data

1.7 Plots of Pressure from Dynamic Calibration and Curve Fit Data

DYNAMIC CALIBRATION DATA
TEST AT UTD AUGUST 29 1991 TEST #2



E(0)= -.0422925852103
 E(1)= .00345824516643
 R SQUARED = .999979525018
 STD DEV OF Y -YCAL = .00195938170895

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +2.000E+01 | +2.021E-02 | +2.687E-02 | +6.662E-03 | 3.40 |
| 2 | +2.250E+01 | +2.953E-02 | +3.552E-02 | +5.988E-03 | 3.06 |
| 3 | +2.500E+01 | +3.901E-02 | +4.416E-02 | +5.154E-03 | 2.63 |
| 4 | +2.750E+01 | +4.809E-02 | +5.281E-02 | +4.719E-03 | 2.41 |
| 5 | +3.000E+01 | +5.688E-02 | +6.145E-02 | +4.575E-03 | 2.33 |
| 6 | +3.250E+01 | +6.586E-02 | +7.010E-02 | +4.240E-03 | 2.16 |
| 7 | +3.500E+01 | +7.467E-02 | +7.875E-02 | +4.076E-03 | 2.08 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960

E(0)= -.0476681685442
 E(1)= .0035219859212
 E(2)= -1.35618627156E-7
 R SQUARED = .999998700273
 STD DEV OF Y -YCAL = .000493666080973

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +2.000E+01 | +2.021E-02 | +2.272E-02 | +2.507E-03 | 5.08 |
| 2 | +2.250E+01 | +2.953E-02 | +3.151E-02 | +1.978E-03 | 4.01 |
| 3 | +2.500E+01 | +3.901E-02 | +4.030E-02 | +1.287E-03 | 2.61 |
| 4 | +2.750E+01 | +4.809E-02 | +4.908E-02 | +9.939E-04 | 2.01 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960

E(0)= -.0496043735913
 E(1)= .00356372005815
 E(2)= -3.49416285915E-7
 E(3)= 3.03259090438E-10
 R SQUARED = .999999852894
 STD DEV OF Y -YCAL = .000166082221865

TABLE FOR PLOT 1

| X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|---|-------|---------|-------|
|---|---|-------|---------|-------|

P DC 8 2 2 1 1 1974

| | | | | | |
|---|------------|------------|------------|------------|------|
| 1 | +2.000E+01 | +2.021E-02 | +2.153E-02 | +1.323E-03 | 7.96 |
| 2 | +2.250E+01 | +2.953E-02 | +3.041E-02 | +8.759E-04 | 5.27 |
| 3 | +2.500E+01 | +3.901E-02 | +3.927E-02 | +2.650E-04 | 1.60 |
| 4 | +2.750E+01 | +4.809E-02 | +4.814E-02 | +4.999E-05 | .30 |
| 5 | +3.000E+01 | +5.688E-02 | +5.700E-02 | +1.209E-04 | .73 |
| 6 | +3.250E+01 | +6.586E-02 | +6.586E-02 | -2.132E-06 | -.01 |
| 7 | +3.500E+01 | +7.467E-02 | +7.471E-02 | +4.080E-05 | .25 |
| 8 | +3.750E+01 | +8.368E-02 | +8.356E-02 | -1.202E-04 | -.72 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960
EDIT

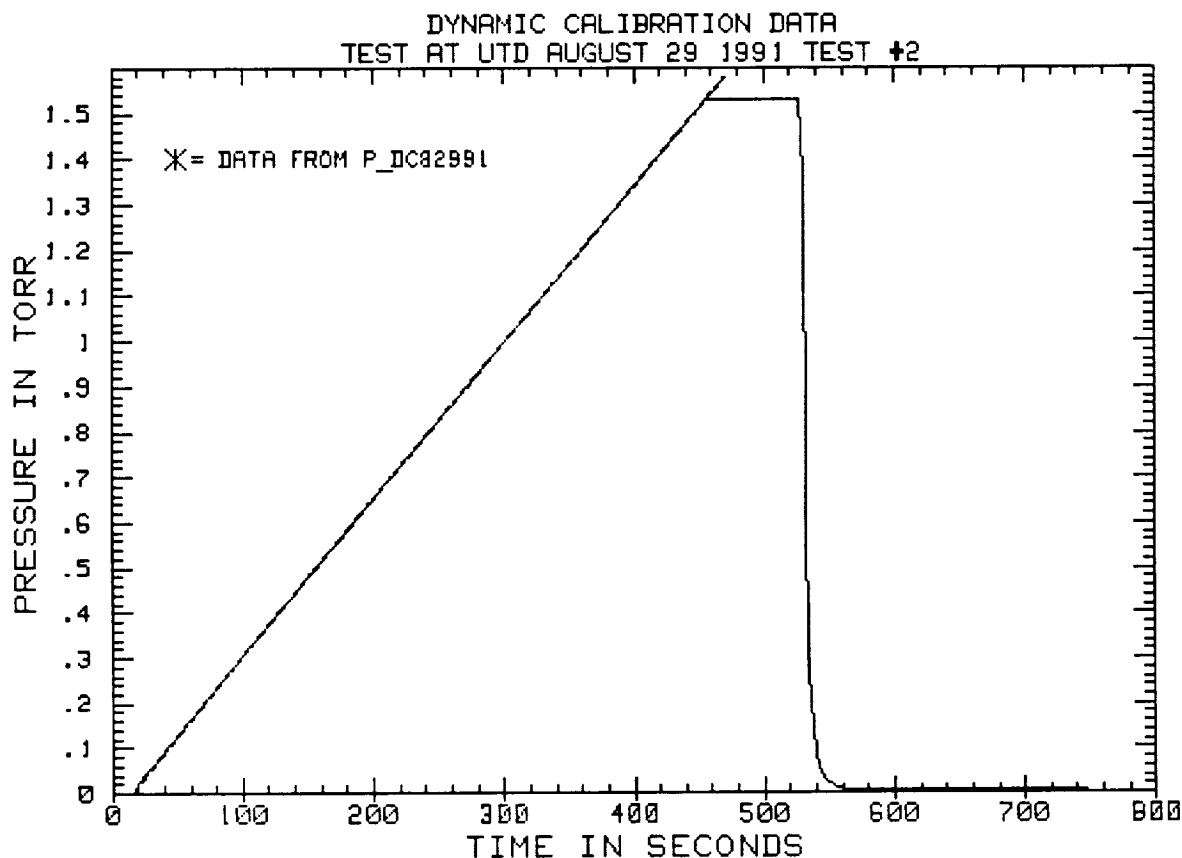
SCRATCH LOAD "

CAT

User 1
RE-STORE LIST
"

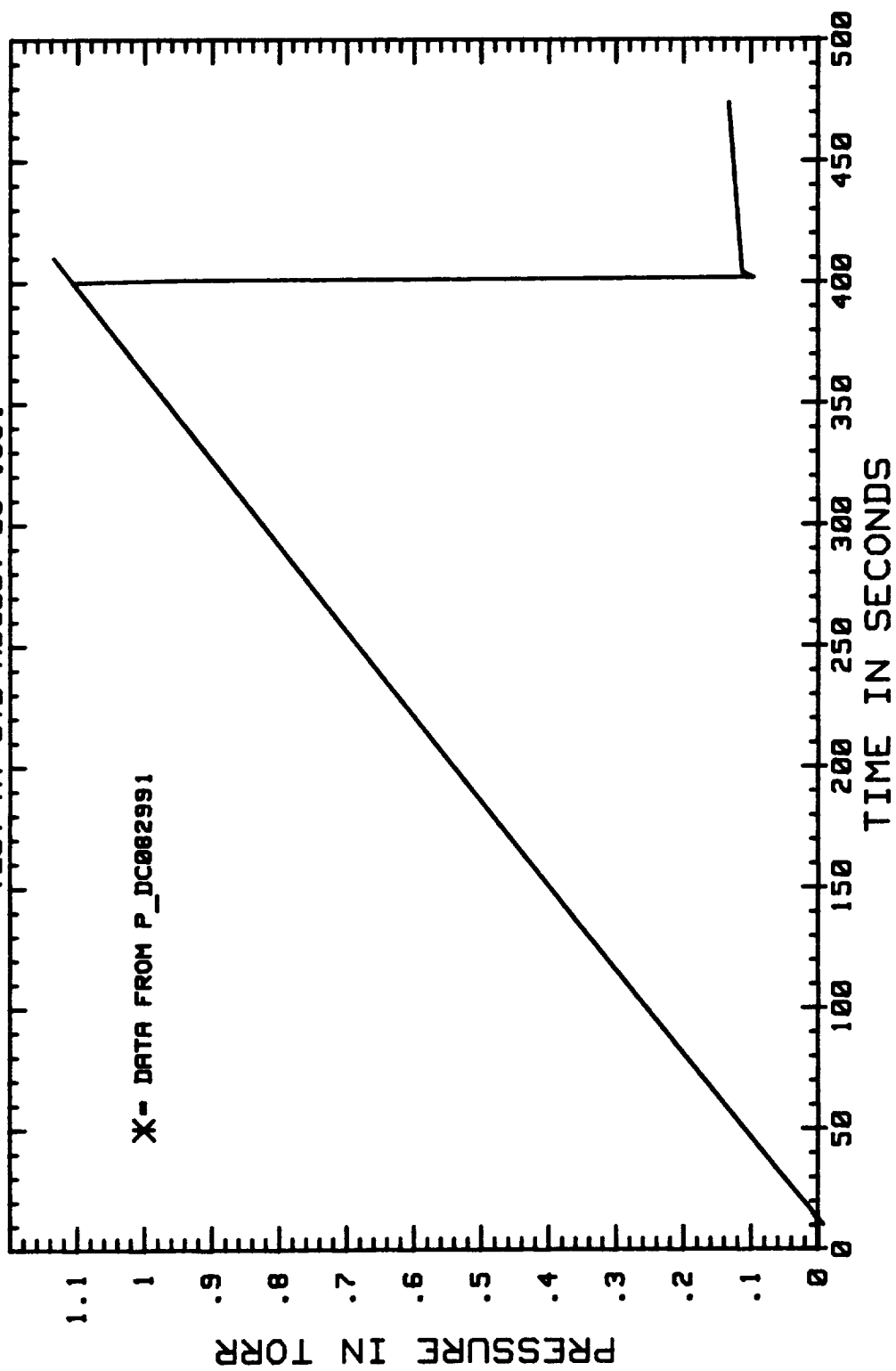
Caps

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P. DC82991

DYNAMIC CALIBRATION DATA
TEST AT UTD AUGUST 29 1991



E(0)= -.0315510479911
 E(1)= .0028550878121
 R SQUARED = .999979415313
 STD DEV OF Y -YCAL = .00144902807078

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +1.200E+01 | +1.110E-03 | +2.710E-03 | +1.600E-03 | 1.10 |
| 2 | +1.300E+01 | +2.560E-03 | +5.565E-03 | +3.005E-03 | 2.07 |
| 3 | +1.400E+01 | +5.094E-03 | +8.420E-03 | +3.326E-03 | 2.30 |
| 4 | +1.500E+01 | +7.510E-03 | +1.128E-02 | +3.765E-03 | 2.60 |
| 5 | +1.600E+01 | +9.724E-03 | +1.413E-02 | +4.406E-03 | 3.04 |
| 6 | +1.700E+01 | +1.212E-02 | +1.699E-02 | +4.861E-03 | 3.35 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

*

E(0)= -.0352544840605
 E(1)= .0029064820599
 E(2)= -1.25351823903E-7
 R SQUARED = .999998660959
 STD DEV OF Y -YCAL = .000369574113101

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +1.200E+01 | +1.110E-03 | -3.948E-04 | -1.505E-03 | -4.07 |
| 2 | +1.300E+01 | +2.560E-03 | +2.509E-03 | -5.140E-05 | -.14 |
| 3 | +1.400E+01 | +5.094E-03 | +5.412E-03 | +3.177E-04 | .86 |
| 4 | +1.500E+01 | +7.510E-03 | +8.315E-03 | +8.045E-04 | 2.18 |
| 5 | +1.600E+01 | +9.724E-03 | +1.122E-02 | +1.493E-03 | 4.04 |
| 6 | +1.700E+01 | +1.212E-02 | +1.412E-02 | +1.995E-03 | 5.40 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960

*

E(0)= -.0363485751232
 E(1)= .00293475249109
 E(2)= -2.93157201619E-7
 E(3)= 2.72854272708E-10
 R SQUARED = .999999538855
 STD DEV OF Y -YCAL = .000216881897169

TABLE FOR PLOT 1

P. DC080000

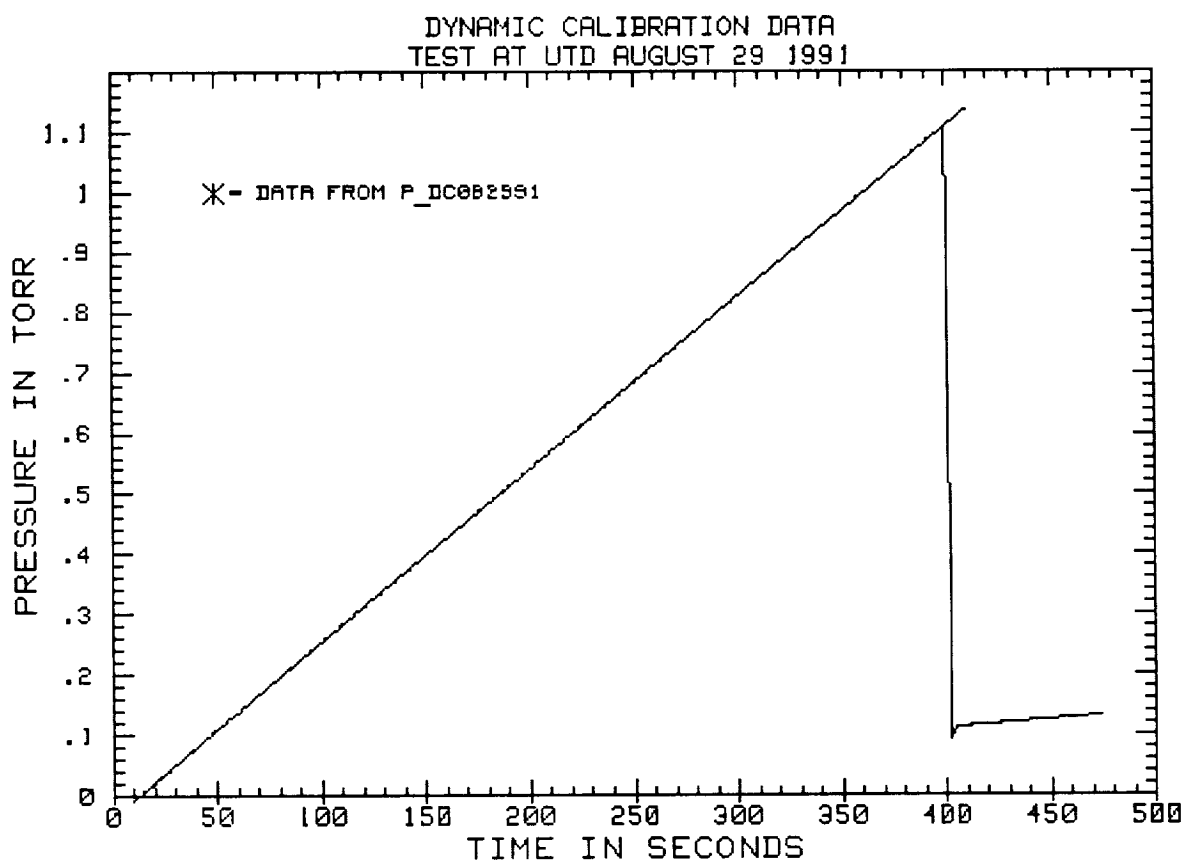
10/2

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +1.200E+01 | +1.110E-03 | -1.173E-03 | -2.283E-03 | |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

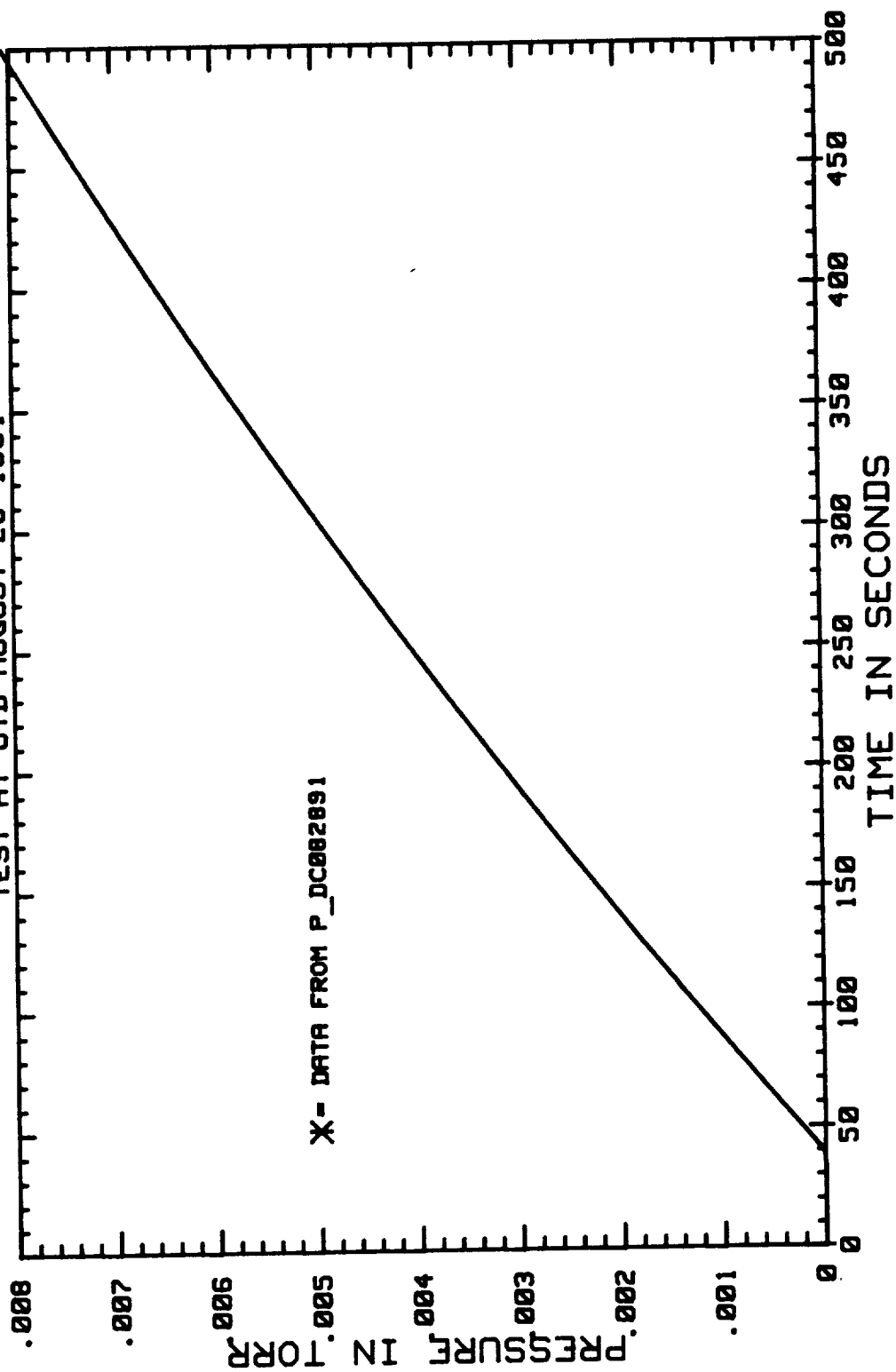
ERROR 105 IN 5910 Numeric IMAGE field too small

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P. D. 000000 0000

DYNAMIC CALIBRATION DATA
TEST AT UTD AUGUST 28 1991



$$Y = AX^2 + BX^1 + C$$

E(0)= -.000450096775178
 E(1)= 1.76235371901E-5
 R SQUARED = .99813973488
 STD DEV OF Y -YCAL = 9.52100993805E-5

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +4.200E+01 | +7.075E-05 | +2.901E-04 | +2.193E-04 | 2.30 |
| 2 | +4.300E+01 | +9.072E-05 | +3.077E-04 | +2.170E-04 | 2.28 |
| 3 | +4.400E+01 | +1.070E-04 | +3.253E-04 | +2.183E-04 | 2.29 |
| 4 | +4.500E+01 | +1.316E-04 | +3.430E-04 | +2.114E-04 | 2.22 |
| 5 | +4.600E+01 | +1.520E-04 | +3.606E-04 | +2.086E-04 | 2.19 |
| 6 | +4.700E+01 | +1.733E-04 | +3.782E-04 | +2.049E-04 | 2.15 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960 User 1 Caps
 EDIT SCRATCH LOAD " CAT RE-STORE LIST "

E(0)= -.000796476948088
 E(1)= 2.11322173868E-5
 E(2)= -6.79976782312E-9
 R SQUARED = .999996977418
 STD DEV OF Y -YCAL = 3.83782030655E-6

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +4.200E+01 | +7.075E-05 | +7.908E-05 | +8.331E-06 | 2.17 |
| 2 | +4.300E+01 | +9.072E-05 | +9.964E-05 | +8.916E-06 | 2.32 |
| 3 | +4.400E+01 | +1.070E-04 | +1.202E-04 | +1.319E-05 | 3.44 |
| 4 | +4.500E+01 | +1.316E-04 | +1.407E-04 | +9.103E-06 | 2.37 |
| 5 | +4.600E+01 | +1.520E-04 | +1.612E-04 | +9.227E-06 | 2.40 |
| 6 | +4.700E+01 | +1.733E-04 | +1.817E-04 | +8.417E-06 | 2.19 |
| 7 | +4.800E+01 | +1.963E-04 | +2.022E-04 | +5.903E-06 | 1.54 |
| 8 | +4.900E+01 | +2.133E-04 | +2.227E-04 | +9.375E-06 | 2.44 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960 User 1 Caps
 EDIT SCRATCH LOAD " CAT RE-STORE LIST "

E(0)= -.00081951406915
 E(1)= 2.15307396993E-5
 E(2)= -8.5976233208E-9
 E(3)= 2.32281072052E-12
 R SQUARED = .999999589444
 STD DEV OF Y -YCAL = 1.41443074087E-6

TABLE FOR PLOT 1

P-DC000001 10/2

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +4.200E+01 | +7.075E-05 | +6.978E-05 | -9.671E-07 | -.68 |
| 2 | +4.300E+01 | +9.072E-05 | +9.060E-05 | -1.246E-07 | -.09 |
| 3 | +4.400E+01 | +1.070E-04 | +1.114E-04 | +4.401E-06 | 3.11 |
| 4 | +4.500E+01 | +1.316E-04 | +1.322E-04 | +5.707E-07 | .40 |
| 5 | +4.600E+01 | +1.520E-04 | +1.529E-04 | +9.435E-07 | .67 |
| 6 | +4.700E+01 | +1.733E-04 | +1.737E-04 | +3.797E-07 | .27 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960
EDIT

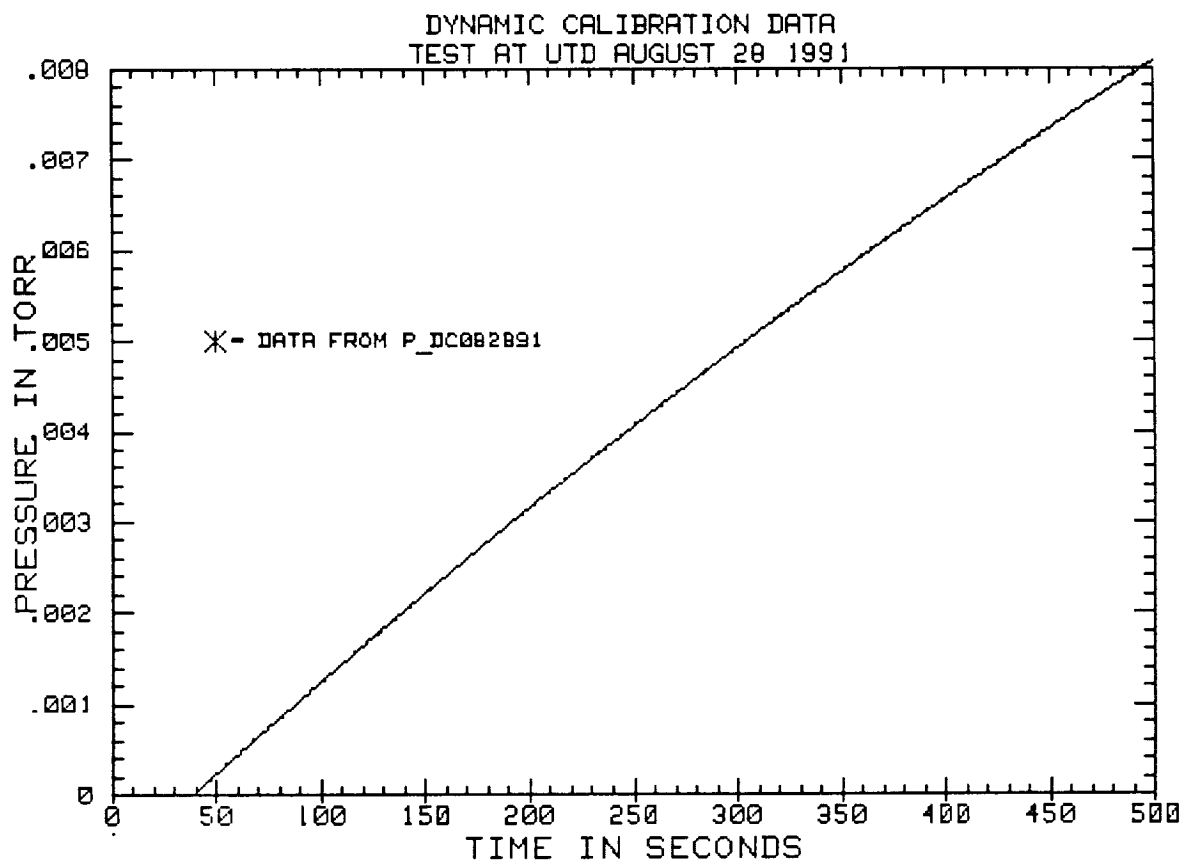
SCRATCH LOAD "

CAT

User 1
RE-STORE LIST
"

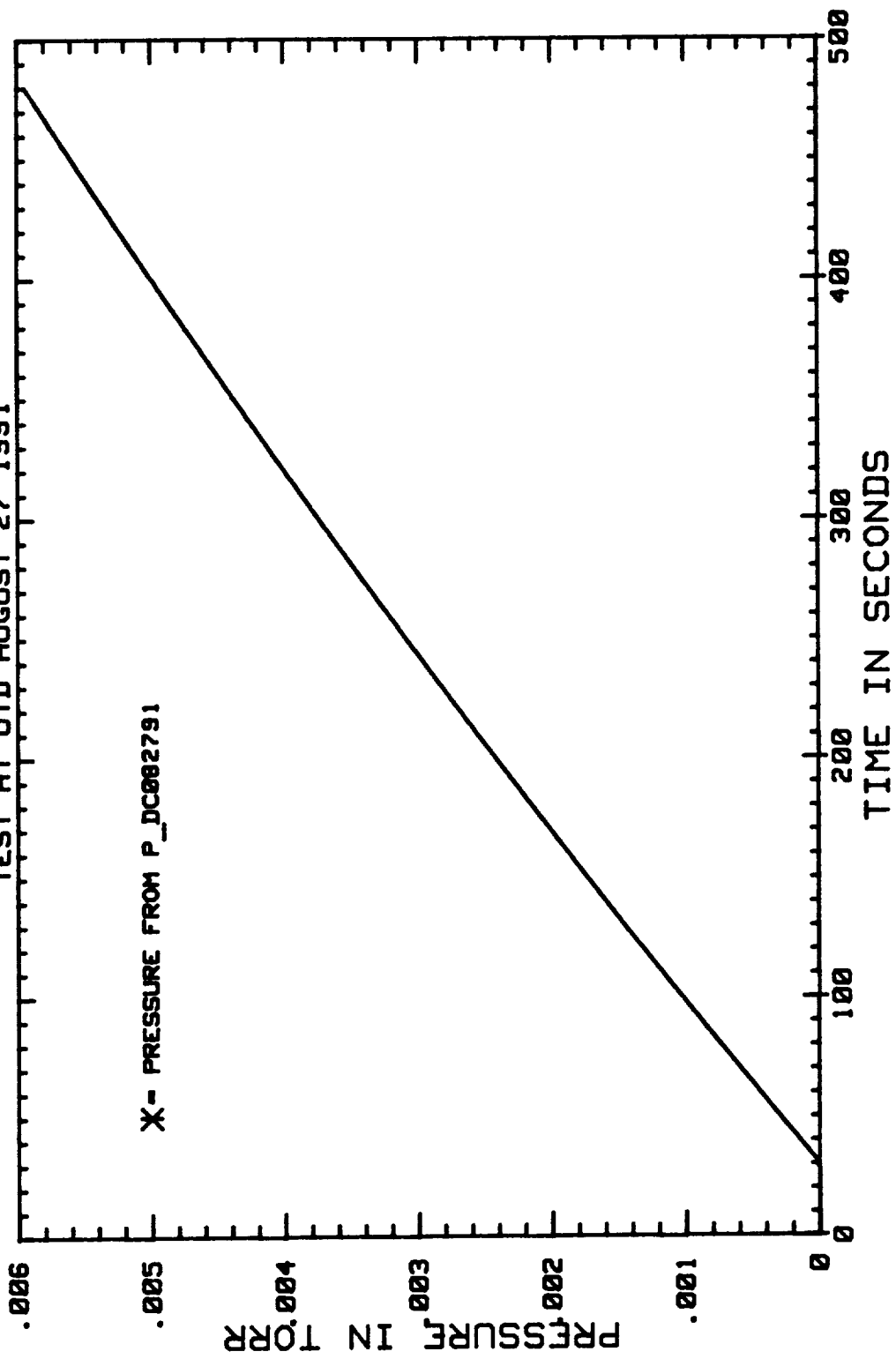
Caps

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P_DC082891 20F2

DYNAMIC CALIBRATION DATA
TEST AT UTD AUGUST 27 1991



COEFFICIENTS FOR PLOT 1
 DATA FROM P_DC082791
 DATA DESCRIPTION

$$Y = AX^2 + BX^1 + C$$

E(0)= -.000264243414302
 E(1)= 1.31928422816E-5
 R SQUARED = .99902285871
 STD DEV OF Y -YCAL = 5.27049875696E-5

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +3.300E+01 | +4.974E-05 | +1.711E-04 | +1.214E-04 | 2.30 |
| 2 | +3.400E+01 | +6.495E-05 | +1.843E-04 | +1.194E-04 | 2.26 |
| 3 | +3.500E+01 | +7.923E-05 | +1.975E-04 | +1.183E-04 | 2.24 |
| 4 | +3.600E+01 | +9.495E-05 | +2.107E-04 | +1.157E-04 | 2.20 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

EDIT SCRATCH LOAD " CAT User 1 RE-STORE LIST Caps

$$Y = AX^2 + BX^1 + C$$

E(0)= -.000437535769387
 E(1)= 1.50239294398E-5
 E(2)= -3.61161175201E-9
 R SQUARED = .999997949797
 STD DEV OF Y -YCAL = 2.41418994545E-6

TABLE FOR PLOT 1

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +3.300E+01 | +4.974E-05 | +5.432E-05 | +4.581E-06 | 1.90 |
| 2 | +3.400E+01 | +6.495E-05 | +6.910E-05 | +4.153E-06 | 1.72 |
| 3 | +3.500E+01 | +7.923E-05 | +8.388E-05 | +4.648E-06 | 1.93 |
| 4 | +3.600E+01 | +9.495E-05 | +9.865E-05 | +3.695E-06 | 1.53 |
| 5 | +3.700E+01 | +1.098E-04 | +1.134E-04 | +3.595E-06 | 1.49 |
| 6 | +3.800E+01 | +1.217E-04 | +1.282E-04 | +6.418E-06 | 2.66 |
| 7 | +3.900E+01 | +1.377E-04 | +1.429E-04 | +5.164E-06 | 2.14 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960
 EDIT SCRATCH LOAD " CAT User 1 RE-STORE LIST Caps

$$Y = AX^2 + BX^1 + C$$

E(0)= -.000446249038711
 E(1)= 1.51846708843E-5
 E(2)= -4.35936070712E-9
 E(3)= 9.83233340043E-13
 R SQUARED = .999998857399
 STD DEV OF Y -YCAL = 1.80227206585E-6

TABLE FOR PLOT 1

P DC082791

10/2

| | X | Y | CAL Y | Y-CAL Y | SIGMA |
|---|------------|------------|------------|------------|-------|
| 1 | +3.300E+01 | +4.974E-05 | +5.013E-05 | +3.931E-07 | .22 |
| 2 | +3.400E+01 | +6.495E-05 | +6.503E-05 | +7.900E-08 | .04 |
| 3 | +3.500E+01 | +7.923E-05 | +7.992E-05 | +6.864E-07 | .38 |
| 4 | +3.600E+01 | +9.495E-05 | +9.480E-05 | -1.547E-07 | -.09 |
| 5 | +3.700E+01 | +1.098E-04 | +1.097E-04 | -1.444E-07 | -.08 |
| 6 | +3.800E+01 | +1.217E-04 | +1.245E-04 | +2.787E-06 | 1.55 |

WANT TO DETERMINE X WHERE Y=0 VALUE OF POLY

5920 GOTO 5960

EDIT

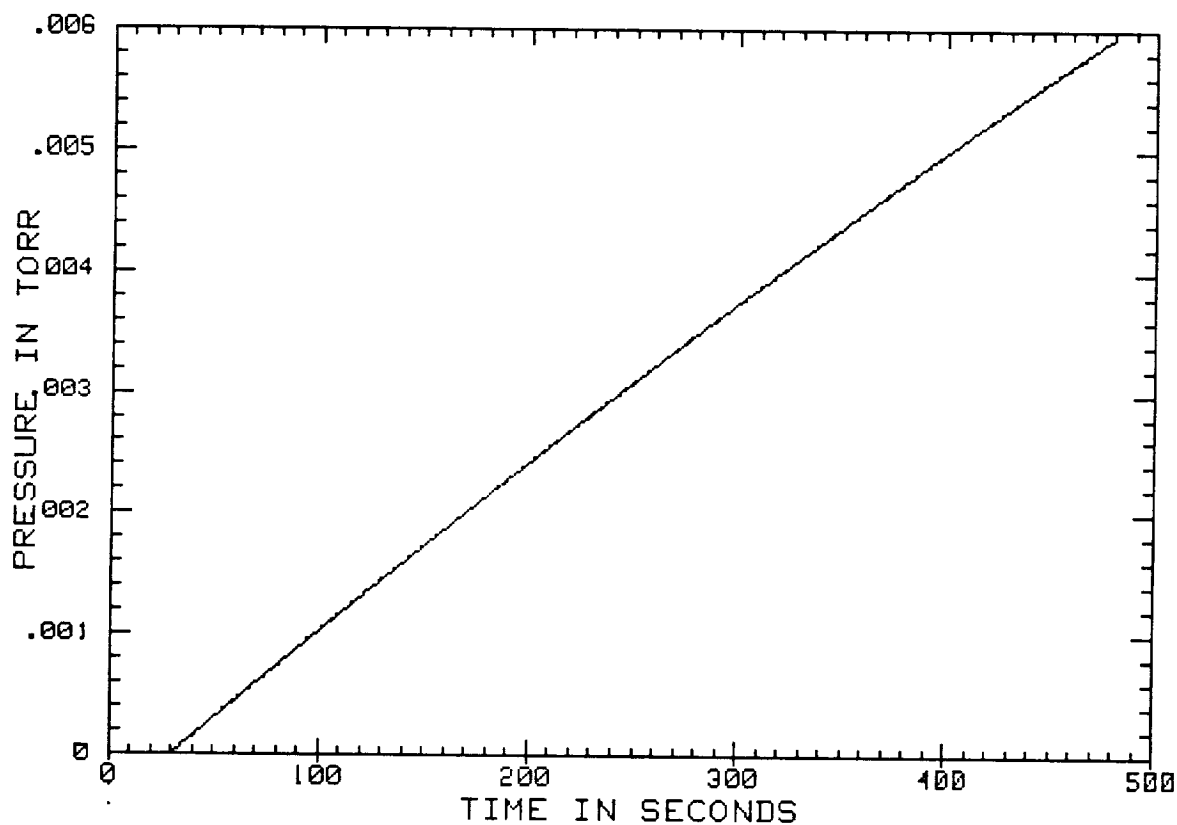
SCRATCH LOAD "

CAT

User 1
RE-STORE LIST
"

Caps

*



P. DCO82-21 272

| REPORT DOCUMENTATION PAGE | | | Form Approved OMB No. 0704-0188 | |
|---|--|---|---|---|
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| 13. ABSTRACT (Maximum 200 words) The Shuttle Upper Atmosphere Mass Spectrometer (SUMS), a component experiment of the NASA Orbital Experiments Program (OEX), was flown aboard the shuttle Columbia (OV102) mounted at the forward end of the nose landing gear well with an atmospheric gas inlet system fitted to the lower fuselage (chin panel) surface. The SUMS was designed to provide atmospheric data in flow regimes inaccessible prior to the development of the Space Transportation System (STS). The experiment mission operation begins about 1 hour prior to shuttle de-orbit entry maneuver and continues until reaching 1.6 torr (about 86 km altitude). The SUMS flew a total of three missions, 61C, STS-35, and STS-40. Between flights, the SUMS was maintained in flight ready status at the physics laboratory of UTD. The flight data has been analyzed by the NASA LaRC Aerothermodynamics Branch. Flight data spectrum plots and reports are presented in the Appendices to the Final Technical Report for NAS1-17399 as follows: Attachment A: Flight 61-C Report (Vol. 2) Attachment C: Flight STS-40 Report (Vol. 9) Attachment B: Flight STS-35 Report (Vol. 3, Vol. 4, Vol. 5, Vol. 6, Vol. 7, and Vol. 8) Attachment D: SUMS Software Listing (Vol. 9) | | | | |
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